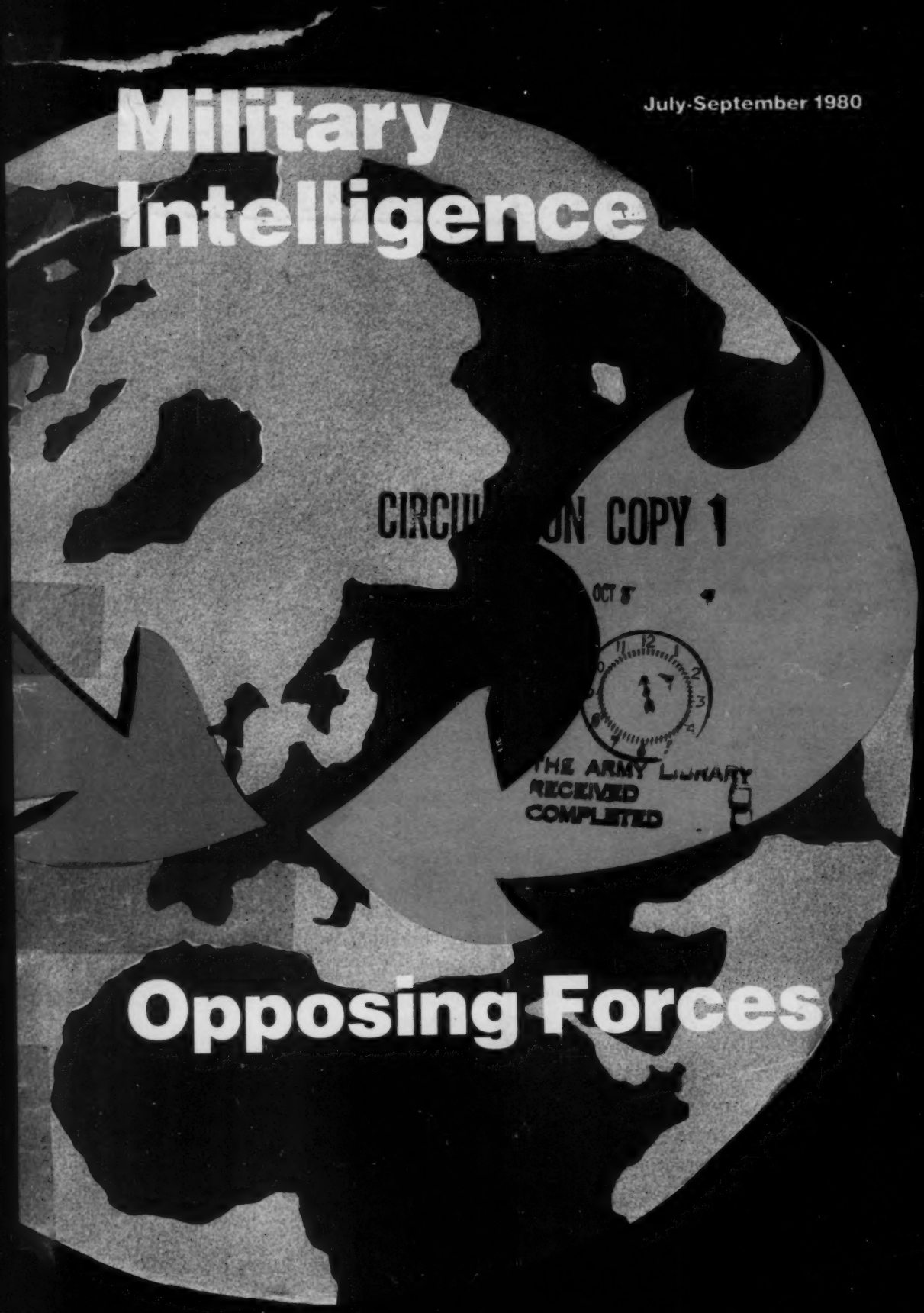
Military Intelligence

July-September 1980



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Cover

Our cover graphic represents this quarter's theme, Opposing Forces. Articles supporting the theme consider OPFOR training, city planning in Europe, the Soviet helicopter threat, the historical significance of Korea and Soviet military leadership.

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Military Intelligence Volume 6, No. 3
(USPS017-030)

Military Intelligence is published quarterly by the US Army Intelligence Center and School under the provisions of Chapter 5 of AR 310-1 as a professional development resource for military and civilian intelligence personnel. Unless otherwise stated, the ideas presented do not represent the official policy or indorsement by any agency of the US Army or Department of Defense. Authors submitting articles for consideration are responsible for informing the staff of Military Intelligence of simultaneous submission and/or acceptance by other publications. Authors are also responsible for clearing their articles prior to submission if appropriate. Use of funds for printing Military Intelligence was approved by Department of the Army in December 1975. Controlled circulation postage paid at Sierra Vista, Arizona. Subscription rates: 1 year—$6.00; foreign rates: 1 year—$8.00.

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From the Commander

In a concerted effort to enhance realism in training by focusing on potential adversaries, the Department of the Army developed the Opposing Force (OPFOR) Program and the National Training Center (NTC) concept. Together, the two represent the most significant training developments in the US Army in recent years. The training and evaluation methods embodied in these two innovations are directed toward a single purpose: to keep units and soldiers alive and combat effective on tomorrow's battlefield—through today's training.

Training Realism Criteria

To meet the requirements contained in AR 350-2, OPPOSING FORCE (OPFOR) PROGRAM, 15 October 1978, and AR 350-2, NATIONAL TRAINING CENTER (NTC), 15 March 1980, it is important that:

- The OPFOR accurately portray the organization, weapon systems, capabilities and vulnerabilities of a valid potential adversary force.
- The OPFOR be aggressive and competitive, actively seeking to defeat the Blue Force within the constraints of the recognized tactical doctrine of the potential adversary.
- Missions and operations postulated for the OPFOR must be expressed in the context of the training objective(s), corresponding with directed US Army unit missions in both the stimulus and response modes.
- Prescribed OPFOR operations and capabilities be applicable to training activities both at the NTC and local unit levels in both CPX and FTX modes to conform to the TRAIN-EVALUATE-TRAIN requirements of the NTC Development Plan.
- Prescribed OPFOR operations and capabilities must be based on a synthesis of those of the potential adversary, stated concretely and in a manner permitting consistent application at all levels and in all forms of training and exercise activity.
- Potential vulnerabilities of the OPFOR be expressed unconditionally and consistently in such a manner as to elicit their exploitation by all units participating in CPXs and FTXs whether at the NTC or local unit level.
- Indications of OPFOR activity, capability, and intentions must be expressed in the context of observables based on the detection capabilities assigned to US units for specific training objectives and in particular exercise scenarios.
- Prescribed OPFOR capabilities, operations, vulnerabilities, and indicators related thereto must be applicable to insertion in ARTEP, SQT, Soldier's Manuals and other training materials without ambiguity.

Intelligence Key, But ...

Intelligence input is, of course, a key element of the OPFOR Program, but it must be made clear that the purpose of the OPFOR Program is to serve as an operational training program with the ultimate result being a continuous cycle of training, evaluating and more training.

The OPFOR Program must go further than simply instilling an awareness of potential adversary capabilities, tactics and doctrine; it should serve also as a vehicle for the testing and refinement of US combat skills and doctrine against those of the potential adversary.

Intelligence Challenge

A significant challenge is the integration of intelligence support into individual and collective training. The S2/G2 are key to meeting this challenge since it is they who provide the Red Force data base for training and exercise activities. It is imperative that the portrayal of the OPFOR or potential adversary is the most accurate replication which existing resources and current state of the art will allow.

A major source of confusion in developing training objectives which incorporate the potential adversary has been the variety of OPFOR programs used. Different units with different missions and effectiveness levels, have tailored their portrayals of the potential adversary(ies) to meet specific unit needs and capabilities. This frequently has led to portrayal of an OPFOR which lacks pertinent elements and capabilities reported in foreign intelligence holdings (potential adversary data base). Training conducted in an environment which lacks a credible OPFOR results in a misleading evaluation of US Army capabilities and inadequate preparation of troops to perform successfully against a potential adversary. The essential consistency of potential adversary portrayal leads to the requirement of intelligence-based analysis tailored to specific mission training objectives.

OPFOR and the NTC

The two programs combined provide consistency of realistic combat training, from the most rudimentary small unit training at home station to the composite, heavy maneuver battalion exercises at the NTC. The same baseline information on the potential adversary is used for OPFOR portrayal from the most fundamental to the most sophisticated levels of unit training.

The involvement of MI personnel in these programs goes well beyond the S2/G2 role of providing Red Force information. Because they must develop the OPFOR scenario based on the commander's training objectives, and the exercise area terrain, the combat role of the intelligence staff is exercised along with that of the combat arms elements of the unit.

As I See It

As I see it, then, the OPFOR Program and the NTC concept are essential to the peacetime training of the Army for its primary wartime function—to win the land battle. Closer to home, the two programs offer MI personnel the opportunity to do in peacetime what they have been trained to do in war.

Authors

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2LT Moses is a 1979 graduate of Mississippi State University where he earned a BA in Political Science and his commission through ROTC. A graduate of the Tactical Intelligence Staff Officer Course, 2LT Moses is currently an OPFOR Action Officer in the OPFOR/EW Division, Directorate of Training Developments, USAICS.

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CPT Payne is a 1975 Distinguished Military Graduate of Hampton Institute. He was commissioned an Infantry 2LT and served as a weapons platoon leader with the 2nd Armored Division. In the 522nd CEWI Bn, CPT Payne was Chief of the IPW and Electronic Order of Battle Sections. CPT Payne has also served as a Mobile Training Officer with the FORSCOM OPFOR Training Det. (Red Thrust). A graduate of the MIOAC, CPT Payne is attending the Counterintelligence Officer Course enroute his next assignment with the 511th MI Bn, 66th MI Group.

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Rudolf Levy was born behind the Iron Curtain and joined an Anti-Communist organization as Public Information Specialist. He was arrested by the Secret Police, tried by the People's Tribunal for counter-revolutionary activity and sentenced to 15 years at hard labor. Escaping a Forced Labor Camp, he crossed the Iron Curtain into West Germany in 1948.

In West Germany, Mr. Levy worked for the United States Military Government as an Electrical Engineer and Counter-Intelligence Agent until 1951. He joined the US Army in 1951, served in combat in Korea and Vietnam and retired in 1972 as a major. While in the military service, he was an Intelligence Officer, Instructor and Intelligence Research Officer on Subversion, Marxist Ideology, Counter-Insurgency, Terrorist Tactics, Underground Activities and Communist Infiltration Techniques.

Mr. Levy holds a BS in Electrical Engineering from Prague Technological Institute; an Engineering Diploma from Heidelberg University. He also studied political affairs at Geneva International University and Slavic Linguistics at the University of Texas at Austin.

His publications include "Freedom And You," comparative studies on Communist-Socialist System vs. Democracy (US Army Troop Information and Education, AG, Indianapolis 1959); "The Communist Expansion In Eastern Europe and Czechoslovakia," study of Communist conquests through infiltration and subversion (US Army Intelligence School, Fort Holabird, MD 1962); "The Communist Subversion," an intelligence report on Communist infiltration of the free world (Fort Holabird, 1963); and "Czech-English, English-Czech Military Dictionary," 1964.

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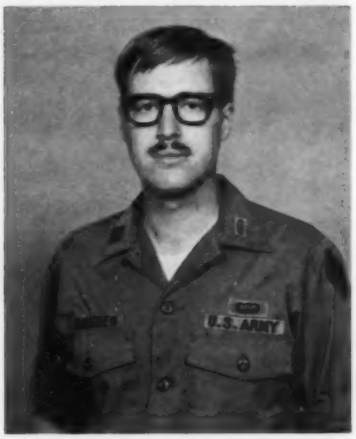
47 CPT Mark A. Youngren



CPT Youngren holds a BS in Chemical Engineering from Michigan State University. He served both as Chemical Officer and S2 in the Division Support Command, 2d Inf Division. He has been responsible for all NBC instruction presented to the Military Intelligence Officers, Warrant Officers and NCOs at USAICS since 1977. He has completed the Chemical Staff Officer Correspondence Course (Advanced) and the Nuclear and Chemical Target Analysis Course.

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OPFOR Today

by Major General
Edmund R. Thompson

The OPPOSING FORCE Program or OPFOR Program at it is more commonly known, is a coat of many colors. To "Army trainers," it represents a unique methodology that portends achievement of an unprecedented degree of realism and validity in the training arena. To line Army units, OPFOR represents new and complex requirements arising during a time of scarce resources and limited manpower. To the Army as a whole, the OPFOR Program represents a profound change in training philosophy. For the first time, the US Army will not train its soldiers and its combat units to fight against mirror images of itself. No longer will Orange forces be passive training aids. Instead they will be numerically superior, employing Warsaw Pact tactics and equipment, and actively seeking to defeat US Army elements training against them.

Beginning in FY 82 every armor and mechanized battalion in FORSCOM will begin rotating through the National Training Center (NTC) at Fort Irwin, CA. While at the NTC, each battalion will be required to engage in a variety of tactical situations against an Opposing Force Unit modeled on a Soviet Motorized Rifle Regiment (MRR). The OPFOR unit will be composed of two active battalions which literally will have been transformed into a MRR and equipped with actual and simulated Warsaw Pact weapons and vehicles. The OPFOR unit will employ realistic Soviet tactics.

The ACSI has General Staff Agency responsibility for the Army Opposing Forces Program, and Army Intelligence is in a position to directly influence the training and combat readiness of the US Army. The program mandates that we in the intelligence community bring the necessary resources, expertise and enthusiasm to bear to ensure the success of the program.

The OPFOR Program is far more complex than is often supposed. The items of foreign equipment available to soldiers to add realism to training do not appear by magic. All the tanks, APCs, weapons and other items in the inventory must be acquired. Once acquired, operator and maintenance manuals have to be written, parts have to be procured or fabricated, ammunition must be purchased and distributed, and finally soldiers must be trained to operate and maintain the foreign materiel. Many of these missions are performed by the 11th Military Intelligence Battalion (Provisional), located at Aberdeen Proving Grounds, Maryland. The 11th MI Bn is the only active technical intelligence unit in the Army and as such is the Army's principal OPFOR action agency. The RED THRUST and OPFOR detachments at Fort Hood perform similar fuctions in direct support of FORSCOM's OPFOR program.

In addition to the need for military equipment, establishment of the OPFOR Program required the creation of an extensive library of unclassified training literature and support material. This task has been accomplished primarily by the United States Army Intelligence Center and School as the executive agent for TRADOC's Combined Arms Center. USAICS published a Soviet OPFOR Manual and a similar publication on North Korea is expected soon. In response to unique requirements generated by the National Training Center, USAICS also contracted for production of an OPFOR Soldier's Manual. This document is needed to train the US soldiers who will function as OPFOR troops at the NTC. The manual, which is based on Soviet doctrine, defines individual performance standards and the duties and functions of OPFOR soldiers. It will be an indispensible training asset not only for the National Training Center but for the total Army as well. Moreover, it will ensure the commonality and doctrinal unity of all units involved in tactical OPFOR operations.

The Army has made a good start at implementing a significant new training program. However, additional resources will be required if OPFOR is going to become truly viable. The acquisition cost to satisfy current requirements for foreign military equipment approaches $25M. In these times of limited resources and urgent operational requirements, it is difficult to acquire such funding.

The American soldier must know his potential enemy if he is to be successful on the battlefield, particularly when the adversary will enjoy a substantial numerical superiority. The OPFOR Program brings the enemy to him. It allows him to understand the strengths, weaknesses, and most importantly, the vulnerabilities of Soviet doctrine, tactics and equipment. Short of actual combat experience, the OPFOR Program is the only (mechanism) human resource program used to prepare our soldiers for what they could encounter on a European or North Asian battlefield. As Army intelligence officers, it is our responsibility to ensure that the US Army is fully knowledgeable of any potential threat. Since the preponderance of intelligence is classified and therefore not disseminated down to maneuver unit level, the OPFOR Program assumes even greater import. It allows for dissemination of critical information down to the individual soldier in an unclassified, understandable format.

OPFOR:
Intelligence Training Applications for Realistic Combat Training

by 2LT Charles A. Moses

Introduction

Our peacetime Army stresses training as its primary mission. With today's soldiers it is imperative that this training be both interesting ***and*** challenging. Training realism, a long-time goal of trainers, continues to receive command emphasis. Soldiers are interested in and challenged by realistic combat training.

The US Army Opposing Force (OPFOR) Program, established by Army Regulation 350-2 and under aegis of the Army's Assistant Chief of Staff for Intelligence (ACSI), requires the energy, initiative and imagination of the tactical intelligence officer (remember "enemy, weather and terrain"?). The program is based upon identified potential adversaries of the United States and requires suitable foreign intelligence to provide the data necessary for individual and collective training. As a number of tactical intelligence officers can testify, a successful unit OPFOR program demands command support (direction may be a better word) ***and*** coordination by intelligence (S2/G2) and operations (S3/G3) professionals.

It is important to realize that the Army's OPFOR Program is intended as a training program and ***not*** specifically as an intelligence program. It is more important to ensure that the OPFOR Program is as realistic as possible in its portrayal of a potential adversary. This can and should be done by using unclassified materials (they are available!) to develop a data base on the potential adversary. Classified materials are not excluded from the program, but information requiring security protection necessarily limits player involvement.

The Opposing Force/Electronic Warfare (OPFOR/EW) Division of the Directorate of Training Developments, USAICS, is the action agency for the US Army Combined Arms Center, CATRADA, which serves as the TRADOC OPFOR proponent.

With OPFOR program objectives in mind, the OPFOR/EW Division is currently working on several projects intended to provide a sound foundation upon which an excellent OPFOR program can be built.

Opposing Force emblem.

Opposing Force
An organized force created by and from US Army units to portray ... a potential adversary armed force.
(AR 350-2)

OPFOR Program Objectives AR 350-2

- **Instill an awareness and understanding of the strengths and vulnerabilities of potential adversary doctrine, tactics, weapons systems and organization.**
- **Enhance individual and unit sense of purpose through Realistic Combat Training (RCT). This can be done by developing a realistic battlefield environment to include EW, smoke, aerosols and appropriate combat ratios.**
- **Contribute to the development of essential combined arms capabilities and combat developments in peacetime.**
- **Encourage development of EW, OPSEC, deception, unconventional warfare (UW) and linguist capabilities critical in war and too often overlooked in peace.**

Literature

Readers are familiar with **FM 30-102, Opposing Forces Europe.** This manual has been well-received and is currently being revised and updated. The revision will be known as **FM 34-70, OPFOR Training Module: Soviet Military Forces Europe.** This document will reflect new developments which have taken place in Soviet doctrine, organization and weapon systems. If the reception of **FM 30-102** can be taken as an indicator, **FM 34-70** will prove to be an extremely useful training tool. **FM 34-70** is expected to be in the field during 3d Quarter FY 81.

Another manual, **FM 34-71, OPFOR Training Module: North Korean Military Forces,** is currently in the graphic design stage and will be available soon. The camera-ready mechanics will be submitted for printing and distribution sometime during the 4th Quarter FY 80. Initial comments on the coordinating draft have been positive—indicating that this manual will be another excellent reference.

FM 34-74, Integrating OPFOR into a Training Program, is intended for training managers and trainers at the battalion/brigade level; and instructors and training developers in the TRADOC school system. This manual will contain working methodologies, training strategies, reference material, "how to" tips and a guide to assessing the intelligence production system. This manual will complement **FM 34-70** and **FM 34-71.** The publication date of this manual is presently uncertain.

Individual Training, Unit Training and Post Training Evaluation manuals were recently completed and submitted for validation.

Individual Training Manual (ITM) is written in the style of the conventional Soldier's Manual, but is ***not*** an element of the Enlisted Personnel Management System (EPMS). It is, rather, a training document to assist enlisted soldiers, NCOs and officers in their portrayal of members of an Opposing Force. This manual is unique in that critical tasks of potential adversary soldiers of various specialties are provided. Since there

One of the basic reasons for the development of the Opposing Force (OPFOR) Program has been to make the US soldier aware of his Soviet and North Korean Army counterpart in order to defeat him by exploiting his vulnerabilities ... A second mission of the program is to supplement MI officer training to prepare them as battalion S2's or division staff officers.

Major General Edmund R. Thompson
ACSIGRAM No. 17-79

are specific observable differences between the potential adversary and the US Army in the accomplishment of similar tasks, this manual identifies several major observable tasks and provides the basis for future expansion as potential adversary doctrinal changes are identified.

Unit Training Manual (UTM) is written in modified Army Training and Evaluation Program (ARTEP) format. This manual was designed specifically for use at the National Training Center at Fort Irwin, CA, but may be modified for use by any US Army unit. The UTM provides guidance for training and evaluating units so they will most effectively replicate the appearance, actions and reactions of a Soviet Motorized Rifle Regiment in a scenario as close to actual combat conditions as current state of the art will allow. The UTM emphasizes key observable actions of the Opposing Force, especially where they differ from the manner in which like actions are performed by US Army units.

Post Training Evaluation (PTE) is a companion volume to the OPFOR ITM and UTM and is not an element of the EPMS, but rather, an evaluation instrument to assist in the creation of a realistic Opposing Force. It contains score sheets required to evaluate the realistic portrayal of potential adversary soldiers by the US unit constituting the OPFOR.

How He Fights — The Meeting Engagement, Training Film N. 230-6201, has just been completed and submitted for review. This film introduces offensive operations as practiced by the Soviet Army. The Soviets consider the meeting engagement to be the most likely offensive operation to occur on either a nuclear or non-nuclear battlefield. This film should be available soon through normal Training and Audio-visual Support Center (TASC) channels.

Work continues on another training film, tentatively titled **Integrating OPFOR into Training.** This film is planned to complement **FM 34-74** discussed earlier.

The posters previously seen in ***MI Magazine*** (January–March 1980) have been designated as Graphic Training Aids (GTAs) and, when validated, will be placed in the TASC distribution system. **Warsaw Pact Organization Charts** have been designated as GTA 30-3-18 (1, 2). **Warsaw Pact Charts — Vulnerable Points** have been designated as GTA 30-3-19 (1, 2). All charts will be 14 x 20 inches.

Those readers with a copy of the **Soviet Equipment Recognition Guide** (SERG) (TC 30-3), take note. This TC is being revised by the Foreign Science and Technology Center and the updated version will be known as TC 34-97. It should be available early next year.

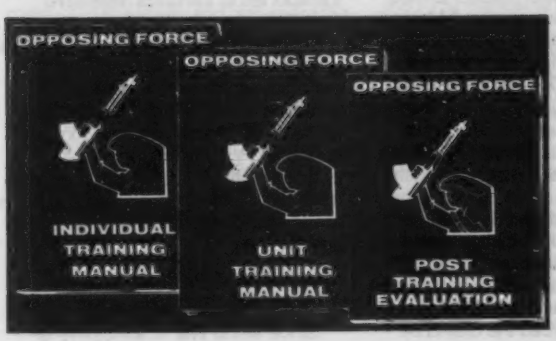
Finally, units rotating through the National Training Center at Fort Irwin should be familiar with the unit emblem of the 32d Guards Motorized Rifle Regiment. This OPFOR unit will be created from two FORSCOM battalions. The patch will be worn on the right sleeve of the OPFOR uniform recently approved by TRADOC.

The 32d Guards Motorized Rifle Regiment unit emblem.

Potential Adversary
Any foreign nation whose activities or strategic interests suggest that they could challenge the national security interests of the United States.

(AR 350-2)

The armed forces of the Soviet Union and North Korea are the only potential adversaries approved for OPFOR use.



City Planning for the Next War in Europe

by CPT Carl E. Daschke

To meet the growing Warsaw Pact threat, US planners have developed new and innovative tactics and techniques designed to allow the maximum utilization of weaponry, command initiative and terrain. Effective use of the terrain is a true combat multiplier which requires extensive planning and evaluation. The purpose of this article is to illustrate the support potential of West Germany's urban areas and how they can assist the commander in fighting the "first battle of the next war."

Military obligations dictate you say? But in fact we have only one-tenth of the military obligations that we pretend to have, or rather that we intensively and assiduously create for ourselves ... For peacetime we armed to excess several times over ... we maintain this army solely out of military and diplomatic vanity.

Alexander Solzhenitsyn
(Letter to Soviet Leaders)

Solzhenitsyn's statement is directed at the core of a question which has troubled military analysts since the Soviets used the 1968 invasion of Czechoslovakia[1] as an excuse to increase the Group Soviet Forces, Germany (GSFG) to its present force level of 21 combat ground divisions.[2] In addition to increasing the size of the GSFG, a massive effort was undertaken to equip the GSFG with weaponry which is both qualitatively and quantitatively superior to that fielded by the NATO forces which defend Central Europe.[3]

What is the potential and direction of these forces which spearhead the Warsaw Pact? Simply stated, the ability of the GSFG, in concert with its Warsaw Pact allies, to launch a surprise attack into West Germany increases with each passing day. Further examination reveals several immediate factors which support this postulation.

- Soviet planners have unflaggingly stressed the need for waging a swift campaign across Central Europe in an effort to capitalize on the shortcomings of NATO defenses.
- Soviet tactical doctrine stresses the value of surprise and deception as a means of seizing the initiative for the attacking force while disorganizing the defensive potential of the adversary.[4]
- The United States has been reluctant to make a total military and financial commitment to our forces stationed in West Germany. Therefore, the bulk of our defense of Europe rests heavily on reinforcement by selected units from the United States. The surprise attack scenario would deny us the weeks, or even days, necessary to deploy these reinforcements to West Germany.
- United States Army, Europe, (USAREUR) units continue to occupy garrisons captured during World War II. This situation has caused most units to be malpositioned with respect to their respective defensive sectors.[5] Malpositioning requires units to road march for several hours or more prior to reaching their General Defensive Positions (GDP). Under a surprise attack scenario, many combat units would not have the opportunity to reach their defensive positions prior to engaging the attacking forces.
- A similar situation exists when we examine USAREUR's logistical and special weapons situation. Although USAREUR is considered to have a relatively shallow rear in comparison to the deep rear afforded the GSFG by European Russia, the forward defense positioning of our forces creates a significant gap between the defending maneuver divisions and the bulk of the USAREUR resupply effort.[6]
- Lastly, while the United States has enjoyed superiority in the tactical and strategic nuclear weapons arenas, it is allowing itself to be placed in a position of nuclear blackmail. As the Soviets move ahead in their quest for nuclear supremacy, the US has made very few gains in the employment of nuclear weapons or the protection of its civilian populace. Thus, the overwhelming destruction which could be inflicted upon the United States by a Soviet first strike or retaliation will certainly preclude our employment of nuclear weapons and severely degrade our ability to assist in the defense of West Germany.

These factors could be severely aggravated by the surprise attack scenario. Reaction time, under counter-surprise conditions, will be at an absolute minimum. Units will be forced, at least initially, to sustain combat operations with only the materials and equipment which can be immediately transported to the unit's defensive sector.

In order to win, or even survive in this environment, the defending commander must use all assets and facilities available to him. Meticulous planning of the unit's defensive sector must be conducted in order to optimize the potential of the unit positions, barriers, natural obstacles, terrain and the urban areas associated with the defensive sector.[7]

The Urbanization of West Germany

Since World War II, a massive ur-

banization has occurred within West Germany. This expansion has brought about several significant changes in the terrain's ability to support military operations. Recognition of the massive urbanization of West Germany is acknowledged by US and Soviet planners and reflected in the new concepts and tactics designed to deal with the complexities of military operations in and around the urban centers.[8] Another important aspect of urbanization has been its effect on the tactical value of the terrain. Traditional avenues of approach into West Germany have begun to lose significance as a result of massive urban sprawl.

In the past, towns and cities have been considered as potential obstacles to be rubbled to impede the progress of an attacking force but new demands placed upon the defending commander by the possibilities of the counter-attack scenario have shown the city in a much different light. Cities offer myriad potential assets to the defending commander, including materials, equipment and facilities that defending forces will find in short supply.

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City Planning

The City Plan was developed to enable the commandant to utilize and integrate urban areas into the unit's defensive plan. It is a detailed study conducted to identify and document the potential support assets and facilities existing in a city or town. It encompasses, but is not limited to, the areas of logistics, transportation and communications. The needs of the unit and the potential resources within a city will most often dictate the exact contents of the plan. To provide quick and detailed information to the commander and his staff, the City Plan uses indexed verbage, maps and overlays depicting various facilities and services. It is also periodically updated to reflect any changes.

Urban Selection. Before initiating a City Plan, the intelligence officer must evaluate the cities and towns located within the unit's defensive sector in order to determine which will best support the needs of the unit. The easiest method of classifying urban areas is by the urban population and perimeter distance criteria used by the Soviets (Figure 1).[9]

Soviet Classification of Cities

Classification	Population	Perimeter
Large	100,000 or more	Greater than 35 km
Average	50,000 to 100,000	15 to 25 km
Small	Less than 50,000	Less than 15 km

Figure 1.

The size of an urban area is a prime consideration providing the planner with an indication of the support capacity of the city and its potential for being targeted for interdiction by the attacking forces. If a smaller city will meet a unit's needs while attracting less attention, it should be selected over a larger one which would invite the attention of the attacking commander.

Major Road Patterns. Current Soviet doctrine calls for the bypassing of areas or obstacles impeding the progress of the attacking force.[10] The major road network of a city and its inherent sprawl pattern will assist the planner in determining its "barrier potential" and inherent trafficability. Generally, West German roads fall into four basic patterns: radial, rectangular, irregular and combined.

Radial. The radial pattern, characteristic of urban areas whose major roads radiate outward from the center of the town, usually the town square or market place, is most prevalent in small rural cities. Movement through a radial-patterned city would be restricted somewhat but not significantly impeded.

Rectangular. A rectangular city, with evenly-spaced, well-patterned, parallel-running roads, is considered the most trafficable but is associated only with the newer, large West German cities. Because it is unlikely that a rectangular city would be found close to a political border, such a city will seldom be considered for the defender's use.

Irregular. An irregular pattern is evident where the road network is a complete jumble which fails to have a recognizable pattern. This is the least common road pattern and presents the greatest difficulty of passage for attacker and defender.

Combined. Cities exhibiting qualities of two or more major road patterns are considered to have a combined pattern. An urban area may be initially radial, but through expansion become combined as perimeter areas are constructed in a rectangular pattern. Most large cities (Nurnburg, Bamberg, Stuttgart) exemplify the combined pattern.

Location of the City within the Defensive Sector. The location of the urban area within the unit's defensive sector is an important consideration in the selection of the city. Cities located to the rear of a sector provide easier access and centralized location while remaining out of the range of most enemy indirect fire systems. If possible, the city selected for planning should not be astride a major mobility corridor (Motorized Rifle Regiment or above) because it becomes more likely that it will be identified as an enemy objective for the attacking forces. Careful selection of the urban area in relation to planned or proposed battle areas will insure that the city's assets and facilities can be used to their fullest extent by the defending forces.

The City Plan

Once a city has been selected for planning, the intelligence officer is ready to begin the City Plan, including areas of city government and communications to assist the commander in controlling or directing the actions and movements of the civilian populace.

Population Control. The first area of evaluation is the identification of existing government services and agencies. During World War II, US forces were responsible for the control and administration of numerous European cities,[11] including the supervision of government services and the welfare of the general population. While these areas are traditionally the responsibility of the Civil Affairs Staff Officer (G5), the defending commander will be intimately involved under the counter-surprise scenario. It will be necessary to put various CA plans into action in hours or days once the defending unit has moved into sector. Because time will be extremely critical in the initial hours of conflict, the commander can ill-afford to task subordinate commanders with refugee and population control.

During the first hours of battle, a large segment of the civilian population can be expected to flee to safer areas[12] despite the official German "Stay in Place" policy. This exodus will undoubtedly clog most major routes leading from the endangered area, hampering

the movement of our forces into and across the defensive sector. In addition to keeping the ingress routes into the sector open by establishing numerous Traffic Control Points (TCP), the control of the general population will be an important task. Undesirables and opportunists, not to mention saboteurs, can be expected to take advantage of the situation to create disorder and dissension among the populace.[13]

Local police agencies, the Bundegrenschutz and VBK or WBK can assist the commander in controlling routes into sector and dealing with civilians.[14] Headquarters and key personnel of these organizations will be included in the unit's City Plan.

City Government and Services. Major federal or municipal offices located within the city are to be identified along with personnel occupying key government positions. The defending commander can assist in assuring the continued operation of the established urban government which will be important to the survival of the city itself. Fire departments and utilities will also be identified for possible use by the defending commander.[15] Although they may have little initial military value to the defending forces, these services will serve as a stabilizing factor for the general population.

Political Orientation. West Germany, like the United States, has democratic, socialist and communist political organizations. Although the vast majority of these political parties could be expected to support the democratic government, some would be suspect in the event of hostilities with the Warsaw Pact.[16] By determining the prevailing political inclination of the general populace and individuals occupying key positions, the commander will have a better idea of the general attitude of the population toward his forces. An area hosting a large or influential communist organization would most likely cause the commander significant rear area problems. The wise commander preplans countermeasures for anticipated situations.

Once factors affecting the general population have been considered, cities must be evaluated for materials and facilities capable of directly affecting military operations.

Logistical Support. The counter-surprise scenario will demand that the combat brigade or battalion fight a "come as you are" war. The establishment and maintenance of an adequate logistical base will be vitally important to the defending unit's survival. Problems encountered in establishing such a base originate from two major deficiencies common to all combat maneuver units: time and transportation.

Whether the unit is combat maneuver or combat support, there will be insufficient time to up-load the equipment and materials necessary to sustain combat operations. Combat forces are required to maintain most, if not all, of their basic combat loads of ammunition in local ammunition storage points (ASP). While this procedure stems from our concern for ammunition security, the down-load policy creates an extremely cumbersome situation forcing the unit to spend too much time uploading basic load ammunition and too little loading other critical items which will be needed in combat operations. This problem has been eased by allowing the armor units to maintain a portion of their main-gun basic load aboard their tanks, but little has been done to decrease the time required to upload tools and associated maintenance equipment which will be critically important in the defensive sector.

The second major deficiency is the unit's inability to transport materials and equipment into sector via organic transportation. For example, that portion of the unit's basic load of ammunition not loaded aboard combat vehicles will have to be trucked into sector by the battalion's cargo trucks.

This situation has been aggravated by each new TO&E change as the authorized number of cargo trucks has been decreased or as proven cargo trucks have been replaced by unreliable ones. Considering the amount of equipment and materials which must be carried into the defensive sector and the limited number of vehicles (minus those lost through combat attrition and maintenance losses), the gravity of this situation becomes readily apparent.

A similar situation exists with fuel hauling and storage capability. Our defensive plans are based upon the assumption that, given sufficient time, our units can move smoothly into defensive positions and our logistical plans can be put into operation. The warning and reaction time assumed under the counter-surprise scenario will not allow such grandiose plans to reach fruition. Consequently, combat units will be forced, at least initially, to depend upon organic fuel distribution assets.

Examining an armor battalion's fuel handling and refueling capability and real-world requirements, one would find its 54 tanks can operate for approximately 12 hours or cruise 310 miles. Each tank will use about 375 gallons of diesel fuel for a total of about 20,250 gallons (without including the battalion's wheeled vehicles, generators or other tracked vehicles.[17] Under current MTO&E authorizations, each battalion is authorized four 2,500 gallon capacity COER fuel trucks and four 1,200 gallon 5 ton fuel trucks for a total hauling and refueling capacity of only 14,800 gallons, insufficient for even one total refueling of the unit.

An even more critical consideration is that what fuel is available to the battalion will be drawn and transported from the division training area. Soviet doctrine recognizes logistical areas supporting the defending units as prime targets for interdiction.[18] The nonavailability of fuel through combat and administrative losses will pose a very real problem for the defending commander.

By identifying the various sources of fuel and transportation found within the urban area, the planner can perhaps spare his commander an extremely serious situation. The City Plan will identify, at a glance, the location of gas stations, fuel storage facilities, wholesale outfits and vehicles capable of transporting fuel. In addition to gas trucks, milk, water and other trucks capable of carrying liquids should be identified for possible use.

The counter-surprise scenario will demand that the combat brigade or battalion fight a "come as you are" war. The establishment and maintenance of an adequate logistical base will be vitally important to the defending unit's survival.

Maintenance facilities should also be identified for possible use. Auto and truck repair shops will prove important not for their repair parts, but rather for their service equipment. It will be far easier to replace a tank's power pack using the hoists and associated equipment found in a maintenance facility than to perform the same operation in a more awkward environment. Although the Host Nation Support Agreement[19] provides certain civilian services and equipment to US forces, there is no guarantee of sufficient services and equipment to satisfy a given unit's needs.

The active defense requires that extensive preparation of the battlefield be conducted by the defending force. The construction of defensive positions

and barriers, clearing fields of fire, and execution of prechambers—all require extensive engineer efforts. Unfortunately, the direct support engineer company will have its hands full erecting complicated barriers so the responsibility for the construction of unit positions and defenses will rest on individual units. Almost every city has one or more construction companies complete with bulldozers, bucket loaders and chain saws, assets which will be useful to the defending commander in the preparation of his sector. Construction materials, including concrete, bricks, blocks and timber, will probably be available as well.

Transportation

The transportation support offered by any fair-sized city or town will prove invaluable to the defending commander. Transportation, for the purposes of the City Plan, is categorized as road, rail and aviation. Where the city is located along a navigable waterway or canal, water movement will also be included.

Evaluation of the road network must be far more extensive than identifying which roads are capable of carrying high-tonnage traffic. Routes to and from various support facilities must be considered and documented. Selected routes should be void of constriction which may impede traffic. If possible, routes entering and leaving the city should not have easily interdicted areas such as bridges and tunnels.

The road evaluation should include locations of companies having trucks available to alleviate shortages of cargo trucks within the defending unit. Trucking companies may also have well-constructed storage facilities which could be used to safely store materiel and equipment.

While rail facilities are less important to the planner because we don't have the expertise to utilize a rail system, the storage facilities and heavy equipment found in rail yards (fork lifts, hauling equipment, steel rails and ties) should not be overlooked.

The aviation support offered by an urban area will initially be the most important consideration. Air requirements go far beyond the use of airports (generally located only in larger cities) to those facilities capable of supporting our tactical aviation assets. Most towns and cities have small airfields servicing single engine aircraft and gliders. These airfields are important because tactical aviation is increasingly important in our defense plans. Although rotary wing aircraft can be staged from many tactical locations, the maintenance services available at airfields can assist in maintaining aircraft.

Airfields can also support unit resupply operations and low altitude equipment extraction operations.

Communications

The inability to communicate within sector must be addressed by the defending commander. Considering the difficulty of peacetime communications via FM, one can imagine the problems to be encountered in war. To call Soviet EW potential ominous would be an understatement. The EW folks have advised us time and again that the OPFOR EW threat will render radio communications extremely difficult with our present family of radios.[20] It is therefore critical that we identify those communications facilities (voice, morse, teleprinter and mass media) which can be pressed into service to augment communications within the defensive sector. At an absolute minimum, plans must be made to maintain one or more reliable communications networks between the brigade and its maneuver battalions.

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Wire and radio voice communication systems are associated with urban areas. Wire communications will generally be limited to the existing telephone system. The Bundespost (West German Telephone) operates a reliable, fairly extensive telephone network. Telephones earmarked for continued operation during hostilities when normal services are discontinued will be identified by phone number and location. At a minimum, those telephones located in facilities planned for occupation will be identified for operation.

Consideration should be given to establishing communications between company, battalion and brigade command posts. Telephone communications, easily maintained and virtually impervious to OPFOR EW efforts, will prove invaluable to the defending commander.

Radio systems which may be located within cities include high frequency (AM), very high frequency (VHF), and ultra high frequency (UHF) systems. High frequency radios are generally associated with police, fire and paramilitary organizations. The primary consideration when planning for the use of civilian HF systems is their compatibility with our tactical radios. UHF and VHF radios found at airfields serving the urban area are compatible with aviation radios and can be used to augment aviation-related communications.

Morse systems found within the urban area will have only marginal immediate tactical value due to the deemphasis of morse communications within the US Army. Do not rule out the use of morse to communicate with allied forces operating in the area because morse communications have been proven more effective in an EW environment than FM/AM voice radios.

Teleprinter facilities known in the Army as RATT, may be available at rail stations, government offices, paramilitary organizations and Bundespost facilities and, though not secure, could be adapted to augment or replace our RATT capabilities.

Mass media systems such as newspaper, radio and television can be used to disseminate instructions and information to dispel rumors and calm the civilian population.

Miscellaneous Information

A miscellaneous section will contain general information required by the unit or facilities and services peculiar to the urban area and would include industries having the potential to augment the unit's logistical needs: pharmaceuticals, heavy equipment manufacturing and machine shops.

Obstacles which will assist the commander in establishing defenses within the city will be identified by type and location.

Medical facilities having the capability to extend services to our forces will be identified in the plan. Existing medical facilities must be carefully evaluated prior to use to ensure that they can provide service to defending forces without severely degrading medical services for the civilian population.

Conclusion

If we are to emerge victorious in a conflict where the attacker enjoys supremacy in virtually every tactical area, exhaustive planning and preparation must be conducted. Tactical intelligence can and must provide the defending commander an extensive understanding of his sector's terrain and facilities so that it can be used to its fullest potential. Although it is not a cure for all evils plaguing USAREUR, the City Plan is a step in the right direction.

Footnotes

1. Richard Pipes, ed. **Soviet Strategy in Europe** (New York: Stanford Research Institute, 1976), p. 148.
2. Friedrich Wiemer and William J. Lewis, **The Warsaw Pact Armies** (Vienna, Austria: 1977), pp. 61–64.
3. During the past three years the GSFG has been supplied with the T-64 Main Battle Tank, the SA-6 and SA-8 Air Defense Systems, variant models of the BMP, and self-propelled 122mm and 152mm gun/howitzers. See Wiemer and Lewis pp. 239–262.
4. Pipes, p. 151.
5. Pipes, p. 138.
6. The vast majority of REFORGER prestocks, USAREUR supply depots and special weapons facilities are located near the Kaiserslantern area adjacent the French border.
7. US Army Intelligence Center and School, **Intelligence Preparation of the Battlefield** (Fort Huachuca, AZ: 1978), pp. 1-2 to 1-4.
8. Defense Intelligence Agency, **The Soviet Rifle Battalion** (Washington, DC: 1978), pp. 103–104.
9. Defense Intelligence Agency, **The Soviet Motorized Rifle Company** (Washington, DC: 1976) p. 103.
10. Headquarters, Department of the Army, ACofS, Intelligence, **Military Operations of the Soviet Army** (US Threat Analysis Det., Arlington: 1976.)
11. Office of the Chief of Military History, Special Studies, **Civil Affairs: Soldiers Become Governors** (Washington, DC: 1964), pp. 73–78.
12. General Sir John Hackett, **The Third World War, August 1985** (New York: 1979), pp. 253–259.
13. "Special airborne units of the Warsaw Pact have the general missions of reconnaissance and sabotage. ... It has been confirmed that special airborne units of the East German, Polish, and Czechoslovak armies conduct training exercises wearing the uniforms of the West German, British, and American armies." See Wiemer and Lewis, p. 79.
14. The Wehrbereichs Kommando (WBK) and the Vertigundshereichs Kommando (VBK) represent the Military District and the Military Region Command. This is a territorial army of about 60,000 soldiers which resembles our National Guard. At present time, the territorial forces are not committed to NATO but rather serve in a rear area security role. The Bundesgrenschutz would assist the VBK/WBK.
15. Special Studies, p. 783.
16. Special Studies, p. 815.
17. By including the remaining equipment authorized by TO&E, the fuel required by the battalion would easily be half again the 20,000 gallons required by the tanks.
18. Headquarters, Department of the Army, **FM 30-102, Opposing Forces, Europe** (Washington, DC: 1977), pp. 14-32, 14-35.
19. Host Nation Support allows the US forces to preidentify logistical assets which will be needed during periods of hostilities.
20. **Military Operations of the Soviet Army,** pp. 246–247.

RA Integration

The largest number of RA officers are selected from those Reserve commissioned officers serving on active duty who apply for RA appointment under provisions of AR 601-100. Many calls are made to MI Branch each year by officers concerned about RA integration. The following are typical responses to the most frequently asked questions:

1. Officers applying for integration into the Regular Army must have three years Active Federal Commissioned Service (AFCS) by the convening date of the RA Integration Board (DA Circular 601-930, dated Oct 79).

2. The statutory age maximum for RA officers is 27 years at date of RA commissioning. Officers commissioned as active duty Reserve officers can meet this qualification if their current age minus their total commissioned service will give them an adjusted age of 29 or less. AR 601-100 allows the subtracting of commissioned service as well as a two-year additional adjustment to meet the age requirements.

3. All MI officers who meet the age and service limitations outlined above and who have established outstanding performance records are encouraged to apply. Officers not accepted for integration receive their applications back and may apply again after a one-year period. No permanent record is maintained at MILPERCEN on officers not selected by an RA Integration Board.

4. Selection for RA Integration is made without regard to an officer's Branch, and Boards are briefed to use the "Whole Person" concept in making its selections. Relative RA strengths of specific year groups do play a part in the selection process, however, but not to the extent they did in previous years. Officer year groups 1963 and earlier are currently considered overstrength and it is expected that selection rates among these year groups will be somewhat lower than from year group1964 thru 1977. The best advice for officers desiring RA integration is to apply regardless of year-group.

5. Statistically MI did very well on the last RA Integration Board (Fall 79). The Board was authorized to select a maximum of 60% of all officers considered. Within these overall constraints on selection, 72% of MI officers who applied (all grades) were selected for RA Integration.

6. RA Integration Boards meet twice annually in April and October. Boards are announced to the field in August of each year in DA Circular 601-100. Cut-off dates for submission of applications are normally 90 days prior to each board convening date. Applications which do not make the cut-off date for a board are held at MILPERCEN until the next scheduled board.

7. Applications are submitted on DA Form 61 (Application for Appointment). General officer letters of recommendation are no longer required; however, letters of recommendation (no more than five) from senior officers, are considered helpful. For additional information refer to AR 601-100 or DA Circular 601 series. Applications, with all related papers, are sent by the Major Commander directly to MILPERCEN, ATTN: DAPC-OPP-PR.

Intelligence Support to Security Assistance

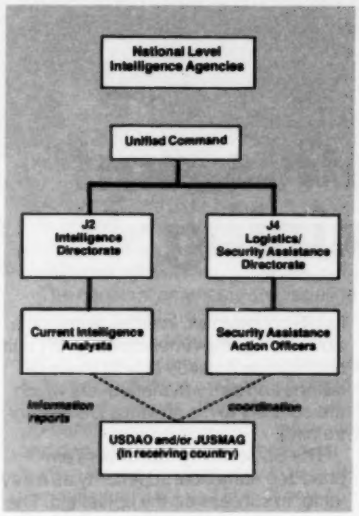
by CPT Peter B. Fisher

The current world situation has caused people in positions of authority within the United States government to take a close look at US relationships with foreign governments. Countries that were once closely allied with the United States have, in recent years, become some of our sharpest critics, as exemplified by recent events in Iran. Consequently, American leadership is increasingly skeptical of the effectiveness of various security programs with foreign countries.

With closer attention being paid to US-foreign relationships, intelligence support to security assistance planners and managers is becoming more essential in establishing foreign military aid programs that will be void of any potential embarrassment to the United States. The purpose of this article is to discuss how intelligence support can improve the effectiveness of the security assistance program at the unified command level.

The security assistance programs that are managed at the unified command range from grants for defense equipment and training programs to contracts for the sale of military hardware to foreign countries. The logistics and security assistance directorate (J4) of the unified command administers the assistance programs and coordinates with the Joint United States Military Advisory Group (JUSMAG) or the US Defense Attache's Office (USDAO) in the receiving country on all matters relating to security assistance. As a result of the close contact between the receiving country and the unified command through the JUSMAG or USDAO, the J4 is in a key position to affect quick changes in the security assistance program should the need arise.

From the standpoint of the United States, security assistance is an excellent means whereby foreign countries can be exposed to US military doctrine, as well as cultural and political ideas. Security assistance is not only a demonstration of US interest in the national security of another country, but also serves as an encouragement for a foreign country to align itself with the United States. Continual intelligence coordination with security assistance managers at a unified command can prolong the effectiveness of a successful security assistance program. This can be done by keeping the security assistance managers aware of the prospects for continued stability within a participating country. Conversely, that same intelligence coordination can be used to forecast instability in a country due to political, social, economic or military unrest. As a result of constant intelligence coordination, security assistance managers would have the capability to determine whether or not it would be in the best interests of the United States to either terminate or expand a particular assistance program in a foreign country.



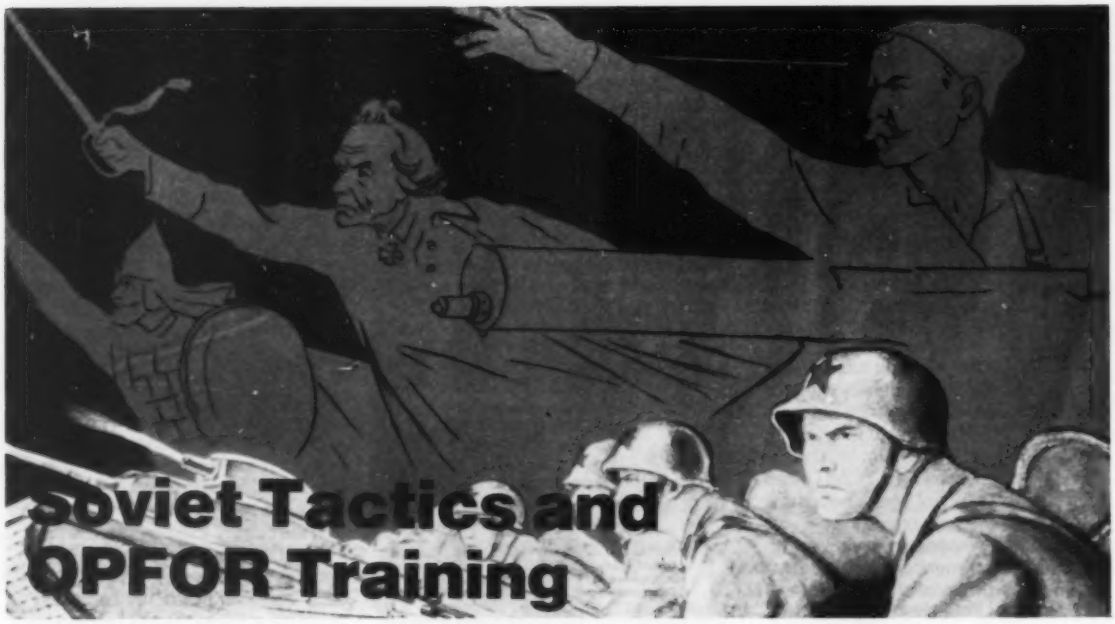
The primary source for intelligence support to security assistance managers at a unified command would be the current intelligence analysts in the intelligence directorate (J2). The organization of current intelligence analytical assets vary from one unified command to another, but all have the capability to closely monitor the countries within their area of responsibility. In addition to receiving reports from national level intelligence agencies, the current intelligence analysts at a unified command routinely receive information reports from USDAO's and JUSMAG's in the command's area of responsibility. The information from the USDAO's and JUSMAG's, coupled with the national level reporting, give the current intelligence analysts a precise picture of the country-by-country situation throughout the unified command.

The action officers who manage the security assistance programs in the logistics and security assistance directorate could benefit from the current intelligence analysis in the intelligence directorate. In their routine of managing a country assistance program, security assistance action officers could be unaware of major political or military developments in the countries receiving the aid. Thorough management and a greater ability to affect rapid changes in a country's aid package, could be the net result of closer coordination between the current intelligence analysts and the security assistance action officers.

Recent events in Iran and Pakistan are examples of security assistance programs that were adjusted because of political, social and military factors inside the receiving country. Assuming that the current intelligence analysts knew of the potential problems in Iran and Pakistan, the action officers handling the security assistance cases could have made the appropriate adjustments on the assistance packages going into those countries prior to the hostilities breaking out. In any case, the desired result of closer coordination between the intelligence and security assistance personnel at a unified command is to quicken the response capability on security assistance packages going into foreign countries.

The key to closer coordination between intelligence assets and security assistance managers at the unified command lies with closer working relationships between the current intelligence analysts and the action officers responsible for the security assistance programs. Additionally, security assistance action officers should make it a regular practice to attend the daily current intelligence briefings held at every unified command. On the other hand, current intelligence analysts, who monitor specific countries, should have a general knowledge of the security assistance packages going into "their" countries. This would enhance the intelligence analyst's capability to advise the security assistance action officers of any specific threat that may be developing in a country.

Not every security assistance program can be void of problems resulting from spontaneous internal tension in the country receiving aid. However, through the practical application of available intelligence, security assistance programs can be more efficiently managed to benefit not only the United States' interests abroad, but also those of the country receiving the aid.



Soviet Tactics and OPFOR Training

by CPT Harold R. Payne, Jr.

The term OPFOR is used so frequently that it has become a part of everyday conversation among Army trainers. But what exactly does it mean? OPFOR refers to the Army's Opposing Force Program, a training concept enabling American soldiers to acquire an understanding of a real world potential adversary, the Soviet Union. With even this basic understanding of the OPFOR program, it is apparent that one of the fundamental ingredients in any OPFOR training program is a maneuver force capable of portraying a realistic Soviet force.

This article is intended to assist in the establishment of an OPFOR maneuver unit training program by discussing Soviet tactical doctrine and how Soviet societal and military systems apply to the control and initiative of Soviet military personnel.

Army Regulation 350-2 (Training-Opposing Force Program) states that the OPFOR Program is:

> An Army-wide training program ... through the use of a realistic and credible opposing force, using the doctrine, tactics, and weapons systems of actual potential adversaries.

Both trainers and soldiers must be aware of the doctrinal strengths and vulnerabilities of the Soviet military. Training against an OPFOR maneuver unit will provide such an understanding.

The Soviet military views tactics, command and control differently from its US counterpart. In order to imitate a Soviet force, the American OPFOR unit commander must be able to make decisions and perform maneuvers which are contrary to his previous US military training.

The Soviet Army has always emphasized numerical superiority as a key factor in success on the battlefield. The Soviets have the largest army in the world and are prepared to capitalize on this numerical superiority in offensive operations. In his book, **Tactics,** Soviet General Reznichenko wrote, "... Only by a resolute offensive conducted at a high tempo and to great depth is total destruction of the enemy obtained.[1]

Soviet forces are usually echeloned in a manner that will allow fresh forces to maintain constant pressure on an opponent during an attack. Should first echelon forces be destroyed, the Soviets are willing to accept still greater losses in order to remain on the offensive and achieve their objectives. The Soviet offensive will emphasize shock, surprise and the use of combined arms units.

The requirement for mobility and maneuverability affects both the characteristics and deployment of Soviet military equipment which is designed for use in day or night operations and in NBC environments (Soviet forces are trained to use chemical weapons as a matter of course). Of particular note are Soviet tanks which, in addition to being capable of rapid cross-country maneuvers, possess radiation attenuating liners and automatic control units to both seal against blast effects and trigger special ventilation systems.[2]

As mentioned earlier, the Soviet requirement for mobility and maneuverability affects the composition of Soviet formations. Their organizational structure emphasizes combined arms operations. Motorized rifle battalions and companies rarely operate without reiniforcements (armor, artillery, air defense, engineer, etc.). The Soviets also place a great deal of emphasis on maintaining tactical formations. All Soviet soldiers are trained to move in well-defined formations and to take advantage of all high-speed avenues of approach. Soviet commanders at all levels constantly emphasize unit adherence to set battle drills and predictably rigid formations. As far as movement is concerned, commanders plan their overall route of attack to cross terrain providing the greatest cover and concealment. However, the Soviets are willing to attack across open areas or on less favorable terrain, if it falls within their operational area. Once the attack has begun, the most important considerations are formation, speed and firepower.

In as much as the OPFOR maneuver unit commander must imitate his Soviet counterpart, it is essential that he understand why the above-mentioned considerations are critical during the attack. Why then is formation among the most important considerations? Preset and organized patterns of movement, used as control aids, enable the Soviets

to move rapidly through all phases of their operations. Platoon commanders lead or are centered within their formation, allowing other vehicles to guide on and follow their actions.

A brief consideration of the training techniques used in the Soviet military will explain why the Soviets have chosen formation as the defensive aid to control. The Soviets induct 1.3 million 17-year-old men annually[3] for a minimum two year obligation in accordance with the Law of Universal Military Service;[4] however, 22 percent of the personnel in Soviet combat units change every six months.[5] Even though each conscript will have participated in more than 140 hours of preinduction military training, the limited military training time necessitates a training cycle based upon simplicity, repetition and realism.

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The Soviet use of combined arms teams gives each arm of the team a definite responsibility, thereby insuring mutual support by the different arms to achieve the objective and the ever-present "iron grip" on the control of firepower.

Consider the following case in point: Soldiers of different arms do not normally engage targets outside their assigned sectors or priorities, unless it is for immediate self-protection or on the commander's orders. For example, during offensive operations, the motorized riflemen normally concentrate their fires on suppressing antitank weapons. The riflemen are supported by the direct fire artillery which also fires on bunkers and personnel carriers, thus allowing the tanks to concentrate on destroying tanks and other hard targets (motorized rifle and artillery do not routinely engage tanks during offensive operations, though they have that capability). Although we may not think this ideal, the Soviets continue to use a very rigid system of designating target priorities and maintaining fire discipline in their fire control procedures.

The constant emphasis on discipline within the Soviet military reflects an almost total lack of personal initiative within Soviet society. The Soviet soldier is the product of a society which greatly relies on directions "from above." While US tactics allow imagination, innovation and decentralized control, the Soviet system leaves no room for initiative at the individual level and little, if any, at the platoon or company levels.

So, although most Soviet writings stress the use of initiative in training and combat, the use of initiative is quite limited. Soviet military writers explain: "The use of initiative must always be based on firm knowledge of and undeviating adherence to regulations and instructions."[6] The Soviet commander faces the dilemma of developing initiative and creativity while always adhering to regulations. Soviet commanders know that staying out of trouble is much more important than impressing their own commanders through originality or initiative and usually demonstrate little independence. Consider the following example:

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When relating the Soviet tactical point of view to his soldiers, the OPFOR maneuver unit commander will most likely encounter skepticism but the Soviet soldier will probably do as instructed, regardless of how illogical it may seem to an American. The Soviet system discourages individualistic behavior and schooling trains Soviet youths to be members of the collective. Indeed, it would seem that the Soviets are attempting to raise a new generation in the experiences of past generations, to counter the fact that World War II (their Great Patriotic War) has become but a memory to many of the citizens. It is for this reason that pictures and statues of and lectures about Soviet heroes have become a part of everyday life for the citizens of the Soviet Union.

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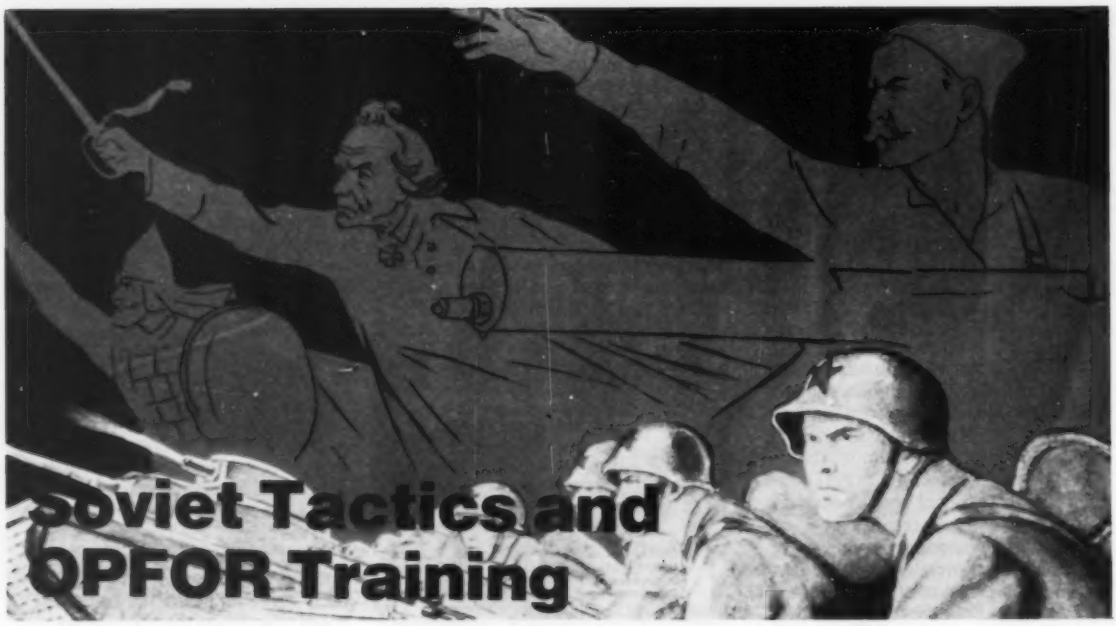

Soviet Tactics and OPFOR Training

by CPT Harold R. Payne, Jr.

The term OPFOR is used so frequently that it has become a part of everyday conversation among Army trainers. But what exactly does it mean? OPFOR refers to the Army's Opposing Force Program, a training concept enabling American soldiers to acquire an understanding of a real world potential adversary, the Soviet Union. With even this basic understanding of the OPFOR program, it is apparent that one of the fundamental ingredients in any OPFOR training program is a maneuver force capable of portraying a realistic Soviet force.

This article is intended to assist in the establishment of an OPFOR maneuver unit training program by discussing Soviet tactical doctrine and how Soviet societal and military systems apply to the control and initiative of Soviet military personnel.

Army Regulation 350-2 (Training-Opposing Force Program) states that the OPFOR Program is:

> An Army-wide training program ... through the use of a realistic and credible opposing force, using the doctrine, tactics, and weapons systems of actual potential adversaries.

Both trainers and soldiers must be aware of the doctrinal strengths and vulnerabilities of the Soviet military. Training against an OPFOR maneuver unit will provide such an understanding.

The Soviet military views tactics, command and control differently from its US counterpart. In order to imitate a Soviet force, the American OPFOR unit commander must be able to make decisions and perform maneuvers which are contrary to his previous US military training.

The Soviet Army has always emphasized numerical superiority as a key factor in success on the battlefield. The Soviets have the largest army in the world and are prepared to capitalize on this numerical superiority in offensive operations. In his book, **Tactics,** Soviet General Reznichenko wrote, "... Only by a resolute offensive conducted at a high tempo and to great depth is total destruction of the enemy obtained.[1]

Soviet forces are usually echeloned in a manner that will allow fresh forces to maintain constant pressure on an opponent during an attack. Should first echelon forces be destroyed, the Soviets are willing to accept still greater losses in order to remain on the offensive and achieve their objectives. The Soviet offensive will emphasize shock, surprise and the use of combined arms units.

The requirement for mobility and maneuverability affects both the characteristics and deployment of Soviet military equipment which is designed for use in day or night operations and in NBC environments (Soviet forces are trained to use chemical weapons as a matter of course). Of particular note are Soviet tanks which, in addition to being capable of rapid cross-country maneuvers, possess radiation attenuating liners and automatic control units to both seal against blast effects and trigger special ventilation systems.[2]

As mentioned earlier, the Soviet requirement for mobility and maneuverability affects the composition of Soviet formations. Their organizational structure emphasizes combined arms operations. Motorized rifle battalions and companies rarely operate without reiniforcements (armor, artillery, air defense, engineer, etc.). The Soviets also place a great deal of emphasis on maintaining tactical formations. All Soviet soldiers are trained to move in well-defined formations and to take advantage of all high-speed avenues of approach. Soviet commanders at all levels constantly emphasize unit adherence to set battle drills and predictably rigid formations. As far as movement is concerned, commanders plan their overall route of attack to cross terrain providing the greatest cover and concealment. However, the Soviets are willing to attack across open areas or on less favorable terrain, if it falls within their operational area. Once the attack has begun, the most important considerations are formation, speed and firepower.

In as much as the OPFOR maneuver unit commander must imitate his Soviet counterpart, it is essential that he understand why the above-mentioned considerations are critical during the attack. Why then is formation among the most important considerations? Preset and organized patterns of movement, used as control aids, enable the Soviets

to move rapidly through all phases of their operations. Platoon commanders lead or are centered within their formation, allowing other vehicles to guide on and follow their actions.

A brief consideration of the training techniques used in the Soviet military will explain why the Soviets have chosen formation as the defensive aid to control. The Soviets induct 1.3 million 17-year-old men annually[3] for a minimum two year obligation in accordance with the Law of Universal Military Service;[4] however, 22 percent of the personnel in Soviet combat units change every six months.[5] Even though each conscript will have participated in more than 140 hours of preinduction military training, the limited military training time necessitates a training cycle based upon simplicity, repetition and realism.

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well affect the soldier politically and economically, even after release from active duty. Every conscript understands that upon his enlistment, the Army's rules are beyond question.

The Soviet soldier is constantly exhorted to strive for better results in "socialist competition" and be prepared to sacrifice "all" for the defense of the "Motherland." It is said to be "possible to die, but impossible not to carry out an order."

The political officer (who has no equivalent in the US Army) exists to indoctrinate and politically motivate his men and insure high unit discipline before and during combat. The Soviets believe, "a soldier who has the moral conviction that his cause is just, will display tremendous personal dedication and devotion to the successful accomplishment of his mission."[12]

A maneuver unit training program stressing realistic concepts will not only be tremendously challenging, but limitless in value, providing lessons that apply not only to an OPFOR program, but to virtually every aspect of combat training.

This article has examined the Soviet tactics with respect to their impact on an OPFOR unit maneuver unit training. program. All things totaled, the Soviet offensive doctrine promises its enemies a formidable challenge; and because the Soviet Army seems eminently capable of responding to the demands of its doctrine, the OPFOR commander must remember to be as earnest as possible in his portrayal of a Soviet force.

The Soviet soldier is the product of one of the most regimented societies in history, a society which has instilled in him the tendency to persist on a course of action regardless of its apparent outcome. Admittedly, this knowledge by itself means very little. However, if this knowledge is combined with additional information pertaining to Soviet tactical doctrine and applied towards the implementation of a vigorous opposing force maneuver unit training program, the result can only be increased combat effectiveness.

Footnotes

1. CPT Harold R. Payne Jr., and CPT Douglas L. Tystad, "Motorized Rifle Maneuver Unit Training," U.S. Army FORSCOM OPFOR Training Detachment, p. 8.
2. Jeffrey Record, **Sizing Up the Soviet Army** (Washington, D.C.: The Brookings Institution, 1975), p. 26.
3. Herbert Goldhamer, **The Soviet Soldier** (New York: Crane Russak and Company, Inc., 1975), p. 65.
4. Goldhamer, p. 7.
5. MAJ A. E. Hemesley, **Soviet Tank Company Tactics DDI-1120-129-76** (Washington, D.C.: Government Printing Office, 1976), p. 11.
6. Goldhamer, p. 99.
7. Goldhamer, p. 101.
8. Goldhamer, p. 79.
9. Goldhamer, p. 71.
10. Goldhamer, p. 72.
11. LTC William Dukes, "Psychological Conditioning of the Soviet Soldier, **Military Review**, 54 (74), p. 75.
12. Dukes, p. 76.

A day in the life of a Soviet paratrooper

Reprinted from Volume X, Number 5, 82nd Airborne Division's ***82nd Impact.***

The typical Soviet paratrooper is 18 or 19 years old, comes from a middle class family and has about a 10th grade education in terms of mathematics and science. His language skills are probably a bit better than the average American trooper's.

'Ivan' has demonstrated "political reliability" and was probably a member of DOSAAF, a reserve organization aimed at turning the youth to the military. Some DOSAAF 9th and 10th graders attend pre-military school at the Ryazan Higher Airborne Command School. The course of study at Ryazan includes introduction to Soviet Army regulations, small arms firing, parachute familiarization and one jump from the 250 foot tower and one from a biplane.

It is estimated that DOSAAF has more than 100,000 parachute qualified teens.

Despite the fact that the Soviet Airborne is advertised as an all volunteer force nearly 70 per cent of its members are draftees.

Base pay for the enlisted Soviet trooper equals about $10 a month. Jump pay is earned by the jump, a couple of rubles (appr. $1.11) per jump.

Fortunately the young trooper doesn't need much money. He does not own a car. He doesn't even own any civilian clothing. He doesn't really need any civilian clothing either; he'll only get about ten days of leave during his first two-year tour, if he behaves.

Chances are he will behave. His platoon commander reports on his progress to the worker's committee in his home town. Should he misbehave he might find it difficult to find a decent job once he got out. In addition, apartments are government-owned and are parceled out by the workers' committee. He would also find it hard to locate a place to stay. It is not unheard of for a soldier's family and relatives to be affected by his misbehavior while in the service.

It is not as bad as it may sound; rather than a simple ribbon to pin on his chest a good soldier is often rewarded with sizable gifts of cash or appliances. Again, it is not unheard of for an outstanding soldier's conduct to be reflected in the jobs or housing available to his relatives back home.

Relations between the officers and the enlisted are strict but not strained. An enlisted man salutes the noncommissioned officers as well as the commissioned ones. In addition, he will rise and give his seat to an officer while riding on public transportation. The prestige and respect given soldiers is far greater in the Soviet Union than it is here. Also the respect shown to officers is greater.

Ivan lives in the barracks, regardless of whether he's married, with his "first sergeant." He is not allowed to sit on his bed, either.

When Ivan wants to go to town he puts on his uniform and is accompanied by several his of squad members and their squad leader. He goes to a dance or a party hosted by a local factory that has "adopted" his unit. He will meet and perhaps dance with young ladies there, but will have very little chance of being alone with them.

If, when he gets up at 0550 for first call, he feels sick he will receive excellent medical attention. Soviet Army doctors are paid almost twice what their civilian counterparts earn.

If Ivan doesn't go on sick call he will have a breakfast of bread and porridge, and perhaps a piece of fruit that he and his comrades grew.

After breakfast he will spend the day training with his platoon. From May to September he will be in the field—all day, every day.

Training emphasizes PT, gymnastics and the obstacle course. PT standards require the trooper to be able to run three miles in 21.4 minutes. Training includes four hours of "civics" each week.

His field uniform is a combination of our "cammies" and chemical protective suit.

When the training day is over Ivan will have a supper of fish and cabbage and then read, attend classes or write letters home. At 2200 he will be released for the day—to go to bed.

Terrorism and Communism: A History and Profile

Since the invention of gun powder, firearms, the bomb and the booby-trap, terrorism has undergone reorganization and redefinition, emerging a sophisticated tactic used as a political tool with military operations. Terrorism and guerrilla warfare were tactics of the Liberty Boys of Georgia, the Green Mountain Boys and others during the American Revolution.

Part I
by Rudolf Levy

Terrorism is not a new phenomena; its use for various reasons has been practiced for centuries. History and legend has shown that terrorism, guerrilla warfare and hostage strategies have been used with varying degrees of success practically since the beginning of man. Since the invention of gun powder, firearms, the bomb and the booby-trap, terrorism has undergone reorganization and redefinitions, emerging a sophisticated tactic used as a political tool with military operations. Terrorism and guerrilla warfare were tactics of the Liberty Boys of Georgia, the Green Mountain Boys and others during the American Revolution.

Since World War I, terrorism and guerrilla warfare have been identified with liberation movements, struggles for independence and various political and economic motivations. Racial revolts which would have been identified with slave revolts in the past become common occurrences in developing and emerging countries. A number of these movements still exist.

Today's terrorist very seldom acts alone, but rather belongs to an organization motivated by some political philosophy and embracing some cause. Contemporary terrorist organizations usually have a capable leadership, professionally-trained in the art of "fifth column" warfare. In many cases these organizations are fronts for other political or foreign groups which may not wish to be directly identified with their causes.

Today's terrorist/guerrilla activities are generally identified within three basic categories:

• **Nationalistic Movement.** Fight for independence from foreign domination, freedom movements and self-determination movements. Examples include the Ulster, South Moluccan Independence (from Indonesia), African emerging nations and other movements. The use of guerrilla or terror tactics in these cases are mostly limited to activity within individual countries although South Moluccan terrorists have struck in Holland. The Palestinian Liberation movement has been international from its inception, due to the scattering of Palestinians throughout the Middle East. Often, nationalist movements are taken over by a foreign power or ideology without the knowledge of the general membership.

• **Right Wing.** Although a number of right wing organizations have developed since the end of World War II, terrorism has not been used extensively against the general population by these groups. Right wing terrorism is usually directed against a particular group of people. Right wing ideology is often further identified with nationalist movements.

• **Left Wing.** A survey of world terrorist activities proves 75 to 85 percent are directly identified with left wing organizations and international Communist movements.

Today's political terrorist traces his direct lineage to the assassins and bomb throwers who eventually ended the rule of Czar Nicholas II. Contemporary international Communist organizations insure that these terrorists learn from the successes and the failures of other terrorists throughout history. Books and instructional pamphlets teach the strategies and tactics used by terrorists in China, Vietnam, Cuba, Cyprus, Algeria and South America. Today's terrorists are trained in the use of weapons, explosives, booby-traps and small group fighting, as well as in the specialized tactics of hijacking, kidnapping and assassinations. Conducted in Libya, South Yemen, North Korea, the Soviet Union and Cuba (among others), the training also includes political and ideological indoctrination and motivation. Today's terrorism is international by Communist support and operates in continuous contact with the "mother organization."

Marx and Engels

Many terrorist organizations claim allegiance to the political theories of Karl Marx and Frederic Engels. Marx defined terrorism and guerrilla warfare as valuable political tools to be used in the violent overthrow of existing regimes by eroding trust in the established social system, fostering insecurity and fear among the people and showing the government to be unable to defend them.

Marxists believe their philosophy justifies any terrorists actions which will lead to the destruction of existing political and economic systems. An international philosophy with the world as its battleground, Communism is usually concealed behind front organizations and nationalistic or liberation struggles. To understand terrorism, one must study the ideology that spawned and supports it.

Communist Ideology

Communist ideology is based on the political-economic theories of Karl Marx. To understand these theories, some terms, **as they are used in Marxist revolutionary philosophy,** must first be understood.

Communism is the ultimate social system, advocating the elimination of all private property, Communism promises total social equality and awareness. All goods and means of production are owned in common, the state withers away and people live in total harmony with everyone producing according to his abilities and rewarded according to his needs. All goods and products are distributed equally among all people. There is no opposition.

Socialism. Pure, Marxist socialism is a system whereby all means of production belong to the state which distributes goods to the people. Private ownership is eliminated in this transition

stage between capitalism and communism. As force may be required to institute the reforms needed, the violence of the revolution is maintained.

Capitalism is a social system wherein the means of production are privately owned and the state is influenced if not controlled by corporations and wealthy individuals. Prices and quantities produced are determined by free market demand. Workers are paid according to the type and quantity of products they produced. Corporate and individual profits are considered thefts from the worker.

Bourgeoise, the class owning the means of production and controlling corporations, is the "exploiter" of the working class.

Petit Bourgeoise is a capitalist who, on a small scale, owns or controls some means of production and employs a small number of workers at wage labor.

The Proletariat. Workers employed at wage labor and exploited by the bourgeoise comprise the proletariat. Without their own means of production, workers are reduced to selling their labor for the necessities of life and are therefore at the mercy of the "exploiting capitalists."

Lumpen-Proletariat (Marx's coinage). The workers aspiring to become petit bourgeoise who betray the proletariat by collaborating with the capitalists are the lumpen-proletariat. Profit-motivated, these people are enemies of the "working class."

Dictatorship of the Proletariat. The most brutal form of government known to man, the dictatorship of the proletariat is a social system designed to govern during the stage of socialism while all opposition to the Communist revolution and all vestiges of capitalism are ruthlessly destroyed. The dictatorship of the proletariat must maintain the force and violence of the revolution, insure that the people understand the necessity for violence and prevent counterrevolution.

Proletarian Awareness. The (Communist Party) must insure that the proletariat understands that it is necessary to overthrow all social systems opposing Communism. It must also assure the proletariat of the necessity of violence in overthrowing the bourgeoise and achieving total equality among all people under Communism. It also must assert that equality can only be achieved through Communism.

Revolution is the only means of achieving victory in the struggle. Negotiated settlements mean nothing while the bourgeoise controls all means of production.

Historic Mission. The Communist party's historic mission is to lead the struggle against capitalist exploitation, seizing power by any means and establishing a dictatorship of the proletariat. Although the Marxist concept of historical inevitability predicts the fall of capitalism, capitalism cannot fall of itself, but must be ruthlessly destroyed. The historic mission is to lead the working people in the world toward Communism.

Communist Philosophy

Communists have, in some parts of the world, attributed their philosophy to the teachings of Christ. While it is true that many early Christians lived in communal societies because of religious persecution, there is no connection between Christianity and the implemenation of Utopian or Marxist-atheist philosophies.

As early as 1516, Sir Thomas More wrote of communal society. His ***Utopia*** was a self-regulating country without government, where all the people lived in total harmony, working for the good of the entity. No one owned anything and all lived well. Children were taken from their parents to be raised by society to become perfect members of the society. No one had to be told what to do because all knew their responsibilities and none doubted the rules of society. Everyone lived equally, with all his needs fulfilled and no one desired more than he had. Unfortunately, Utopia, from the Greek "no place," remains non-existent to this day. Although Marx claimed full authorship of his philosophies, some passages from ***Das Kapital*** and the ***Communist Manifesto*** bear a striking resemblance to ***Utopia.*** Marx did, however, add atheism to the utopian concept.

The Industrial Revolution of the 19th century caused social and economic upheaval throughout Europe. This turmoil nurtured radicals demanding immediate changes. Marxist philosophy was intended to provide legitimacy to their movements.

Communal living systems were attempted during this period but most failed because few people would give up their ways of life for unknown, untried systems. As Utopian socialism failed, Marxist theories, called Scientific Socialism, gained popularity with the radicals.

Born in Trier, Germany in 1818 the son of a wealthy lawyer, Karl Marx became a philosopher by profession and a revolutionary by choice. He was exiled to Belgium and, later, England, for his revolutionary views and activities. His friend and collaborator Frederic Engels was also a wealthy, radical Geman who admired Marx and supported Marx and his wife and children. It is ironic that the founder of Communism lived supported by money earned by capitalistic means.

Marx and Engels collaborated on many revolutionary philosophical works. One of the most voluminous, ***Das Kapital,*** (The Capital) became the cornerstone of modern Communism. Communists accept ***Das Kapital*** as unimpeachable proof of the invincibility of Communism, and the inevitability of Communist revolution and the destruction of capitalism. ***Das Kapital*** was completed by Engels in 1894 after Marx's death in 1883. In the ***Communist Manifesto,*** published in 1848, Marx set his scientific socialist ideology into motion, giving once-disorganized bands of revolutionaries a rigid set of scientific laws, rules, conditions and techniques.

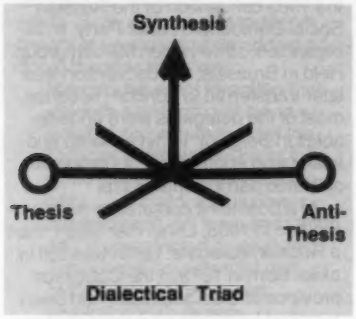
The first Communist International formed by Karl Marx in London in 1864 was a gathering of radicals, have-nots, socialists and anarchists. Although a number of congresses were held, nothing was ever accomplished due primarily to in-fighting among "revolutionaries." In 1872, Marx transferred the Communist International headquarters to New York. The First International was dissolved at a Party Congress held in Philadelphia in 1876. The location and date of this congress were by no means coincidental. Marx attempted, in the Philadelphia Congress, to identify his proletarian struggles with those of the American Revolution 100 years before.

Shaped by Karl Marx, communism would reflect his own ruthless, domineering, tyrannical and intolerant character, becoming a most hideous instrument of power for those who took the reins of the Party to implement his theories.

Marxist Theories-Simplified

Marxist theories and ideology are as complex and unpredictable as their inventor.Marxism is based on atheism and the theory that mankind progresses through history in a scientific process in which life revolves around the struggle for control of the means of production. Each epoch in history is a class struggle having a dominant class (Thesis) which controls production and unequally distributes wealth while workers selling their labor for their subsistence, exploited by the ruling class, become the Anti-Thesis and struggle for economic survival. The Anti-Thesis wins or influences the ruling class, forming a new social class, the Synthesis. The Synthesis becomes the New Thesis and the process is repeated until

constant class struggle attains the ultimate class structure.



Although this philosophy was attributed to Marx by his followers it was really taken from German philosopher (whom Karl Marx never met) G.W.F. Hegel. According to Marx and Hegel, the history of mankind evolves in the following stages of history without exception:

Primitive Communal Society. All means of production belong to all people without structured society or protection for weak and small. Strong elements emerge and oppress the weak, capturing the means of production and creating a new society.

Ancient Slave Holding Society. Large landowners hold slaves by force to produce for them and profits are channeled to overlords while slaves receive only subsistance. The dissatisfaction of the oppressed creates an Anti-Thesis and slave revolts are a common occurrence.

Feudalism. Landowners distribute some land to the serfs but take large profits for protection. Peasants working the land formed the Anti-Thesis. Numerous clashes result and as industrialization progresses, a new society evolves.

Capitalism. The concentration of large amounts of wealth in the hands of individuals and corporations influences the government, creating an elite ruling class opposed by the working class. The ruling class exploits the worker, extracting profits to build more capital, forcing individuals and small companies out of business and into the working class. As the working class grows, the ruling class dwindles. Production increases until a large surplus is produced, resulting in unemployment, drastic production cuts and depression. Tired of being exploited, the workers overthrow the capitalist ruling class, creating a new social system.

Socialism. Based on scientific socialist theories, private ownership is abolished, and all means or production are turned over to the state as the transition between capitalism and communism is accomplished. Because the ruling class will be unwilling to surrender private property and the means of production to the state, a Dictatorship of the Proletariat will be established as an interim social system. The people will be taught their responsibilities to the socialist society because pure Communism cannot exist unless all are willing to do exactly as required. Violence must be maintained and be accepted until the socialist system yields to the highest form of society.

Communism. With the abolition of private property, all means of production belong to the people. All share equally in the profits and the government is abolished. While many definitions of Communism have been presented at successive Party Congresses, the definition presented at the 22nd Party Congress is probably the clearest:

"Communism is a classless social system with one form of public ownership of all means of production and full social equality for all the members of society; under it, the all-around development of the people will be accompanied by the growth of productive forces through a continuous process of science and technology; all forces of public wealth will gush forth abundantly and the great principle 'from each according to his abilities—to each according to his needs' will be implemented ...Communism is a highly organized society of free socially conscious working people in which public self-government will be established, a society in which labor for the good of the society will become the prime vital requirement of everyone, a necessity recognized by one and all and the ability of each person will be employed to the greatest benefit of all the people."

Needless to say the official definition of Communism needs continuous revision. It did not work out as Marx predicted and the dictatorship of the proletariat which Marx intended to be short in duration became permanent. Marx's suggested stages of history indicate that the dictatorship of the proletariat will last much longer than the Communists dare to admit. It has certainly been far more brutal than Marx could have ever envisioned it.

Marx advocated the violent overthrow of all governments or social systems obstructing Communist progress. The Communist ideology prefers total revolution to negotiated settlement. No Communist system has ever been voted in or negotiated. Negotiations serve only as diversions while communists seek revolution, destroying their opposition and its will to resist through terrorism.

Marx advocated the use of terrorism, guerrilla warfare, kidnappings and murder because these tools give revolutionaries an edge over the "scrupulous" enemy in creating unrest, political uncertainty, fear and mistrust among the people.

The Communist vanguard is the elite of the revolution. It espouses proletarian consciousness and forms worker organizations and cells for terrorism, sabotage, kidnapping and small unit actions. Secrecy and absolute dedication are required of all members.

Marx's conditions for revolution were based upon those conditions found in the most industrialized countries, where workers were "exploited" and capitalists ruled. Revolution did not, however, take place as Marx predicted:

> When the productive forces are fully developed and cannot expand any further, the mass of workers will then be unemployed and without any means of subsistence. All the capital will be concentrated in the hands of few persons who have taken the surplus from the workers. The Proletarian consciousness will then be developed and a spontaneous revolution will occur. Vanguard propaganda will increase workers' awareness of their exploitation and terrorism and sabotage will increase mistrust in the capitalist system and create government crisis. The revolution will take place in the most developed countries with a large industrial base where the productive are over-producing. The workers led by the Vanguard and fully, socially conscious will rise in a spontaneous revolt. The ruling class will not surrender peacefully.

Many contradictions exist in Marxist theories on revolution and the psychology of man himself. Marx portrays man as a soulless animal who must be told what to do. Despite his assessment of man, Marx did not prescribe the revolutionary activity of those who would implement his philosophy.

Engel's theory on revolution adds to

the Marxist Doctrine:

> Revolution is the most authoritarian thing. It is an act whereby one part of the population imposes its will on the other parties with rifles, bayonets and cannons. And if the victorious party does not want to fight in vain, it must maintain the rule by means of terror which its arms inspire in the revolutionaries.

Marx closed the ***Communist Manifesto*** with these words:

> The Communists disdain to conceal their arms and views—let the ruling classes tremble at the Communist revolution. The Proletarians have nothing to lose, but their chains, they have a world to win. Working men of the world unite.
>
> The spread of communism throughout the world has been phenomenal—no other ideology has spread as fast as Marxism.

1848 Communist Manifesto—Marx, Engels	**4 supporters**
1903 Bolshevik (Communist) Party in Russia	**17 supporters**
1917 Bolshevik Revolution	**40,000 Revolutionaries**
1921 Soviet Union secured	**250,000,000 Captured**
1945 Soviet Expansion to Europe	**310,000,000 Captured**
1949 Expansion into Asia, Latin American and further	**1.3 Billion Enslaved**

Communism today controls more than one-third of the world population through sheer terror and has declared a "war of liberation" on all non-communist nations.

Practice of Communism

As the theoretical founder of Communism, Marx provided no guidance for the day-to-day revolutionary operations. His theories and predictions proved inaccurate as the first successful Communist revolution occurred in an underdeveloped agrarian country, not an industrialized country where the workers were most "exploited."

The Bolshevik Party (later the Communist Party of the Soviet Union) seized power in Russia in 1917, unleashing one of the bloodiest conflicts in man's history. In March 1917, Czar Nicholas II abdicated under pressure in favor of the Social Democratic Party of Alexander Kerensky. The Bolshevik Party then supported Kerensky's programs, waiting for an opportune time to strike. The time came on November 7, 1917. (According to the Orthodox calendar, it took place on October 25—hence "The October Revolution.")

Marxist theories discussed by Russian dissidents in the last two decades of the 19th century appealed to some people, especially those opposing the czarist regime. However, the Bolshevik Party was chartered only after a split with the opposition during a congress of the Russian Democratic Labor Party, successor to the Marxist Group for the Emancipation of Labor, formed in 1883 in Geneva, Switzerland. These groups were loosely formed and had no coherent program. It took an alliance of the three unlikely individuals to bring the warring factions together: Vladimir Ilyich Ulyanov (later Lenin); Josef Visarionovich Djugashvili (later Stalin); Leonid Bronstein (later Trotsky).

In 1903, a new twist, Leninism, was added to the Marxist ideology. Just as Marx is known as the theoretical founder of Communism, Lenin is the founder of practical Communism, its party organization, hierarchy, international structure as well as the implementor of its dictatorship of the proletariat.

Lenin was born on April 22, 1870, in Simbirsk, now Ulyanovsk. His parents were well-to-do, devout members of the Russian Orthodox Church. A good student, Lenin soon became a radical and revolutionary. At the age of 17, he renounced religion and became an atheist. That year, his brother Alexander was executed for plotting to assassinate the czar. His brother's execution had a most profound effect on Lenin as the urge for revenge nearly drove him insane with hatred of the ruling class. At Kazan University, Lenin began reading Marx's works. In 1891, he passed his law examinations with honors and, despite several arrests for revolutionary activities and agitation, he was admitted to the bar.

Within a few years, Lenin dominated the entire Marxist movement. He became preoccupied with revolution and conquest. In December 1895, he was exiled to Siberia. Released in 1900, he fled Russia and lived in several West European countries.

Lenin's party organization gave the Communists their reputation for ruthlessness, tenacity and total disregard for human life. His theory on party membership still exists. The party remains small and tightly controlled with fiercely loyal, even fanatical members willing to cheat, steal, lie and kill for the good of the party.

The Party was officially organized at the 1903 convention of the Russian Social Democratic Labor Party, a disorganized, strife-ridden Marxist group. Held in Brussels, the convention was later transferred to London, because most of the delegates were undesirables in Belgium. Lenin agitated and finally won approval for his proposal of limited party membership.

At a Bolshevik conference held in Finland in 1905, Lenin met Stalin, then a Russian delegate. Lenin was still in exile. Born in 1879 in the Caucasus province of Georgia, Stalin had been expelled from the Orthodox seminary in Tiflis for revolutionary activity and banditry. Arrested many times and having escaped Siberian exile four times, Stalin was clever and ruthless toward his enemies. These traits appealed to Lenin.

Leon Trotsky joined the group in 1917, arriving from his New York exile, where he was an organizer of Marxist groups. He later became Chief Reorganizer of the Red Army. Trotsky's placement of political officers down to company level still exists in the Soviet military. Trotsky also helped reorganize the State Security Commissariat and was one of the first Chiefs of the State Secret Police. He also organized the "decimal system of population control" through which one undercover agent is placed in charge of surveillance of nine in a given area with the power of life and death. In addition, every nine agents is watched by a tenth agent.

The October Revolution gave birth to the world's first Communist state. Soviet civil war continued four years with more than seven million casualties (most were exterminated for refusing to turn over their property to the state). Later Stalin would comment on the holocaust:

> ... so what, we killed seven million people—we won and who is there to dispute the victor, didn't Lenin say that it doesn't matter if we exterminate two-thirds of the world population, as long as the remaining one-third is Communist?

During the consolidation phase of 1921–1924, an additional three to four million people died of starvation, riots and uprisings. Collectivization of farm and food production failed then and fails today, after 60 years.

While consolidating power in the USSR, Lenin worked to internationalize the Communist movement and unify it under the power of his Moscow party. His theories and actions formed the foundation of today's world Communist organization. The use of brutal force

and terrorism to achieve Communist goals and maintain the communist system was its underlying value. Lenin made some adjustments to Marx's theory of revolution while adding additional theories of his own:

> Marxists have not forgotten that violence and terror will be an inevitable accompaniment of the collapse of capitalism on its full scale and birth of Socialistic Society. ... Dictatorship is power based directly on force and terror and is unrestricted by any law. Terrorism is an essential part of the normal Communist revolutionary business. ... Dictatorship of the Proletariat is necessary and victory over the Bourgeoise is impossible without a long protracted stubborn and desperate struggle in a war of life and death ... As long as Capitalism and Socialism exist, we cannot live in peace, in the end one or the other must triumph—a funeral dirge will be sung either over the Soviet Republic and Communism or over World Capitalism ... Capitalism cannot be defeated and eradicated without the ruthless suppression of the resistance of the exploiters—this is war, the use of terror on the massive scale will bring the desired results, it will terrorize the society into submission ...

Lenin enjoyed ruthlessness, terror and submission.

While Marxism-Leninism gave the communists a theoretical and practical foundation, the economy of the newly created Union of the Soviet Socialistic Republics (USSR) was faltering as the production of food and consumer goods fell drastically. The greatest difficulties were encountered in farm collectivization as unrest spread throughout the USSR and Lenin had to take severe measures to suppress further uprisings.

The Sailors' Revolt in Kronstadt in March 1921 forced Lenin to fall back slightly and establish the New Economic Policy, his experiment with limited private ownership, mainly in agriculture. This stimulated more food production and stopped some dissent. After Lenin's death in 1924, however, Stalin abolished all forms of private ownership and enterprise and cancelled the New Economic Policy while consolidating his power, Unrest among farmers resumed and hunger again haunted the cities. Mass starvation was commonplace. It is estimated that three million people died of starvation in the Soviet Union during this period.

During the Ukraine farmer revolt (KULAK uprising) in the early 1930s, Stalin sent a trusted assistant and Ukranian native to stop the disturbance. With the efficiency common to good Communist Party members, Nikita Segeyevich Khrushchev machine-gunned 38,000 farmers to death in an open field and arrested an additional 53,000.

Stalin's power was consolidated. He used the party discipline to eliminate his enemies. All who disagreed with his policies were exterminated. Purges were commonplace in the Soviet Union throughout the 1930s. Leo Trotsky, after disagreeing with Stalin on procedural questions, was exiled and later murdered by Stalin's agents in Mexico City.

The basic ideological dispute between Trotsky and Stalin concerned the method of operation. Stalin believed Communism was not strong enough internationally to sustain world-wide conflict. Stalin believed a stronger international organization had to be built before spontaneous revolt could be expected. Trotsky, on the other hand, believed Communist world-wide revolution would then succeed. Trotsky accused Stalin of softness on capitalism and named him "Collaborator and Lackey of the Bourgeoise."

Since the Stalin-Trotsky dispute, Communist ideologies are divided into Marxist-Leninist, Trotskyite and Maoist who, like the Trotskyites, are the more militant, believing the world can be taken by force now.

To be continued in the October-December 1980 issue.

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Infantry Weapons of the World, by Christopher F. Foss and T. J. Gander, Charles Scribner's Sons, New York, 1979, 136 pages, $12.50.

Infantry Weapons of the World by Christopher F. Foss. and T. J. Gander is a very concise work on the various infantry weapons which may be found in military arsenals around the world. The weapons of more than 25 countries, including the Soviet Union, China, US and numerous NATO and Warsaw Pact countries are mentioned. Photographs and detailed descriptions present to the reader the latest in modern weapons technology.

The authors do an exceptional job of describing the various handguns, rifles, machine guns, sniper rifles and automatic weapons while anti-tank and man-portable mortar weapons round out the list. The Israeli Uzi 9mm submachine gun and the Heckler and Koch line of pistols, rifles and submachine guns associated with the West German Armed Forces are just a few of the weapons that can be found in this book. A very thorough listing of today's Soviet weapons includes enough background information to answer all your questions. Categorized by country, the book is an excellent reference work. The weapons are shown in various stages of use ranging from stripped-down to actual deployment versions. New weapons like the US XM 174 Automatic Grenade Launcher and the Hughes Lockless Machine gun (advanced automatic weapon) are also included.

Foss and Gander have provided a book that will fulfill the needs of the weapons enthusiast. I recommend that it be read by all who wish to expand their knowledge of the modern weapons systems of today's powerful armies.

2LT John Schmidtbauer
1/321 FA, 101st Airborne (AASLT)

The Soviet Helicopter Threat: Personnel, Organization, Equipment and Employment

by CPT Thomas J. McNamara

In preparing this article, many sources were consulted, including releases from the Soviet press. The reader should understand that the Soviets often release "disinformation" to confuse Western observers. The Soviet tactics discussed in this article may be examples of such disinformation. In the absence of conflicting facts, however, US soldiers should at least consider the Soviet-stated employment techniques.

Author

The highlighted statement by one of the Soviet Union's most respected aviation authorities illustrates the growing Soviet awareness of helicopter combat. Soviet concern is well-founded. With the bulk of American helicopter assets, the US Army now fields approximately 8,000 helicopters; the Soviet Union, exclusive of Warsaw Pact assets, has about 3,460.[2] Sheer numbers, high mobility, battlefield location and combat missions surely dictate eventual encounters.

How will US crews fare against the Soviets? Each encounter will be different, each will be unpredictable, and most will be characterized by lethal violence. American crews can increase their longevity in sustained operations by learning as much as possible about the threat. The purpose of this article is to provide aviators and intelligence personnel with an appreciation of the Soviet helicopter threat and compare this threat with its US counterpart. I will focus on Soviet personnel, task organization, equipment and tactical employment.

Just as tanks have always been the most effective weapon against tanks, helicopters are the most efficacious means of fighting helicopters. Use of helicopters by both warring sides will inevitably lead to clashes between them. Like tank battles of the past wars, a future war between well equipped armies, is bound to involve helicopter battles.

COL M. Belov
Soviet Military Review[1]

Personnel

Before examining the Soviet pilot, one must consider today's Soviet society. The Soviet people have always generously rewarded scientific and technical achievement, particularly since the early 1930s. "A better society through science" might be a Soviet axiom. To this end, the Soviet government has long provided excellent aeronautical training for all interested youngsters.[3] A youth attracted to a career in aviation may very well initiate training while in his early teens.

As the youth progresses into secondary or technical school he must complete military pre-induction training which is similar to our voluntary Junior Reserve Officer Training Course (JROTC) and consists of 140 hours of military training conducted in one and one-half to two school years.

While the course of instruction is given concurrently with regular scholastic or technical courses and includes general military subjects, as much as 25 percent of the training may be technically-oriented.[4] This technical training will be directly related to a military specialty, such as aviation. The program, entitled DOSAAF (The All Union Voluntary Society for Assistance to the Army, Air Force and Navy), provides the Air Force with a pool of politically-indoctrinated and scientifically knowledgeable candidates for flight training.

When the aspirant has graduated from secondary school, he may apply for formal in-service flight training. Applicants for flight training are subjected to intensive aptitude, psychological and physiological testing and must pass a competitive general subjects written examination with an emphasis on aerodynamics.[5] Candidates must also pass a thorough KGB background investigation which closely scrutinizes the political reliability of the applicant and his family.[6] The men finally selected for formal training are considered the best of their generation.

Training the Soviet pilot is expensive and time-consuming. Although little is written in the Soviet press on VVS (Soviet Air Force) initial helicopter training, it is known that initial training is typically conducted over a two- to three-year period and includes the study of aerodynamics, aircraft construction, maintenance, communication, navigation, gunnery, engineering and tactics.[7]

Although VVS school is at least twice as long as US initial training, flight training time is probably similar to that of NATO countries. The first year is devoted to the general military subjects that might be found in US Army officer basic courses.[8] This training may also contain an advanced aircraft qualification phase (a phase the US Army considers graduate level training). After this training, the newly rated pilot is ready to join his organization and pursue his career.

Organization

The Soviets have organized their combat rotorcraft into Independent Helicopter Regiments which number two to three per Tactical Air Army (TAA). Currently, there are 16 TAAs. Four are located in Eastern Europe while the remainder are located in each Soviet military district.[9]

The helicopter regiments are designated as assault or transport. The assault regiment, which will most likely be encountered by US troops, provides forward area services to the Soviet ground units. Assault regiments are usually composed of five squadrons, three attack and four transport with 18 aircraft in the attack squadron and 15 in the transport squadron.[10] Remember that the TAA and its subordinate units have no absolute organizational structure so that it can be tailored to meet specific needs.

All TAA aircraft are VVS assets employed in a direct support role. This integrated role with a subordinate helicopter command relationship is consistent with Soviet doctrine of combined arms operations. This task organization is structured to take full advantage of the helicopters' mobility and speed to achieve the ground commander's objective.

Equipment

To achieve success, the Soviets

have a viable organizational framework and an abundance of outstanding helicopters. The two helicopters US forces will most likely encounter are the Mi-24 attack helicopter (NATO Code Name: Hind) and the Mi-8 troop transport helicopter (NATO Code Name: Hip). Each craft is excellently engineered, constructed and equipped for its wartime role.

Introduced in 1972, the Hind is generally considered one of the most sophisticated helicopter gunships in the world. Latest reports indicate that it may have a radar-directed four barrel 12.7 mm Gatling-type machine gun, a forward looking infra-red scanner for target detection, a low-light level TV, electrothermal de-icing devices for main and tail rotor blades, and a bulletproof wind screen.[11]

The Hind combines the firepower of conventional gunships with the lifting capability of modern troop transports even though it is expected to be used exclusively as a gunship.

The principal assault transport helicopter, the Hip can carry 28 combat-equipped troops and a crew of three.[12] The Hip can deliver self-supporting rocket fire for disembarking troops. Considered the backbone of air assault, Hips are usually escorted to assault locations by Hinds.

recently introduced two new helicopters, the UH-60 and the AH-64 (Advanced Attack Helicopter) which should be a vast improvement over the current systems. Brigadier General Edward M. Brown said in a recent interview, "The AAH has greater firepower and stand-off, has a night and adverse weather capability, is more survivable, more reliable, and more maintainable."[15]

A new ATGW system to be mounted on the AAH will probably be its most important improvement. The AH-64 will be equiped with a "fire and forget" type missile which will allow the crew to mask behind protective terrain immediately after firing the missile as the missile homes onto the target using laser designation.

With the integration of the UH-60 and AH-64 into the helicopter fleet, the United States should achieve parity on any battlefield. The critical factor will then become proper utilization and employment of forces.

Employment

Having closely observed American helicopter tactics and vulnerabilities in Vietnam, Soviet air tacticians have efficiently adapted their observations to modern battlefield dynamics. The Soviets may now be considered

Table 1. Characteristics of Hip and Hind.[13]

	Hip/Mi-8	Hind A/Mi-24	Hind D
Date in Service	1967	1972	
Number of Engines	2	2	
Weight (kilograms)			
Empty	7,261	N.A.	
Gross	12,000	10,000	
Range (kilometers)	480	500	
Crew + Pax	3 + 28	4 + 8	
Primary Roles	GP, Assault	Armed Assault	Attack
Armament	4 Bombs or 4 Rocket Pods or Sagger	12.7 mm MG 4 Swatter 128 57 mm Rockets	4 Barrel 23 mm Cannon, 4 Pylons for 57 mm Rockets

Though formidable, these systems can be defeated. The Hind, with its fully articulated rotor system, may be less maneuverable than initially believed.[14] Its unique profile and size make it an easily recognizable, significant target. Its onboard antitank guided weapon (ATGW) must be visually tracked to the target: from missile launch to target hit, up to 27 seconds, it must remain unmasked, and obviously vulnerable to enemy anti-aircraft fire.

The United States, on the other hand, world leaders in effective helicopter employment.

The majority of helicopters observed on the battlefield will most likely be engaged in heliborne assault or anti-armor operations.

The heliborne assault will typically involve the seizure of a specific objective, usually a pinpoint target such as a river crossing site or mountain pass 20 to 30 miles ahead of an advancing force. Supported by artillery, attack helicopters or fighter cover, the heliborne force could reach and secure the objective in a matter of minutes. A contingent of 20 to 30 Hips, supplemented by a smaller force of heavy-lift helicopters, could move an entire motorized rifle battalion.

The Hind is the undisputed leader in airborne anti-armor warfare. Wherever opposing NATO tanks gather, Hinds will be found. US crews supporting NATO task forces must expect Hinds to make every effort to neutralize the US helicopter threat.

Hinds will operate in nap of the earth (NOE) flight, deployed in pairs, positioned well forward in the main battle area and within range of supporting ground-based air defense systems.[17]

Hinds' weapons systems will be used against other helicopters as well as armor. Though a formidable enemy, its employment may present expoitable tactical weaknesses. Describing training in a Turkestan helicopter gunship squadron, Soviet Maj. Belyayev discussed diving-type firing as opposed to hover fire.[18] This diving technique, long ago eliminated from US tactics, exposes aircraft to hostile fire for unnecessarily long periods of time.

While the rationale for this technique may be the relative scarcity of anti-aircraft weapons in opposing units, the maneuver does provide a very lucrative target for opposing helicopter crews. Maneuverability, battlefield observation, and weapons changes are severely limited in the dive. Should the Soviets pursue diving tactics, US crews could take advantage of resulting vulnerabilities.

In the same article, Maj. Belyayev mentioned the engagement of targets at minimum range. While this might suggest pilot bravado and increase weapons effectiveness, close maneuvering would expose Soviet crews to hostile counterfire for a longer period of time than necessary. US tactics, on the other hand, emphasize target engagement at maximum range to maximize engagements, achieve surprise and increase survivability.

Conclusion

In 1959, Asher Lee wrote, "The Soviet defense authorities are readily aware of the importance of tactical mobility in the atomic age. Apart from recent increased emphasis on armored forces, helicopters will assume more and more a large-scale role in achieving this mobility."[19] His words proved prophetic. Today the Soviet helicopter force has achieved world-wide recognition as a potent threat.

American airmen should not be inor-

(continued on page 49)

The Birth of the 2's: Combat Intelligence in the American Expeditionary Force

by Captain Paul R. Scott (USMCR)

Few military specialties fire the imagination as does the intelligence function. If many commanders perceive their unit's S2 to be firmly in the hands of eccentrics, this merely proves that they perceive intelligence personnel to be special and unique. Though this may seem a hoary service tradition, perhaps comparable to the cavalry mystique, it is actually a fairly recent phenomenon born of the First World War when the American Expeditionary Force established America's first permanent combat intelligence system.

Never before World War I had a need for a formal US combat intelligence effort been seen clearly. Compared to the vast, prolonged struggles of 1914–1918, battles in previous wars were of relatively short duration over a limited area. Fronts, even for brigades, were measured in hundreds of yards, and units were close to one another. Even division commanders could keep in personal touch with their forces and had almost instantaneous knowledge of developments to their front and flanks. Consequently it was unnecessary for subordinate commanders to engage in prolonged intelligence-gathering activities. Intelligence then was the responsibility of overall field commanders who created whatever organization they needed on an *ad hoc* basis. There was no continuity in intelligence matters and in the turbulence of demobilization and the economics of peace the units were dismantled and the lessons forgotten.

Before the First World War the United States had an uneven combat intelligence effort. General George Washington demonstrated a remarkable talent for producing and using intelligence against the British during the Revolution.[1] In the Mexican War General Winfield Scott's forces contracted the intelligence effort to a Mexican highwayman named Manuel Dominguez.[2] By 1860, however, military intelligence was again nonexistent. When Captain Montgomery Cunningham Meigs led a secret expedition to Florida for President Abraham Lincoln just before the outbreak of the Civil War, his funds came from the State Department. The Army had no budgeted Secret Service funds.[3] During the conflict the Union Commander, General George Brinton McClellan, again had to turn to a private individual to organize an intelligence service. Allan Pinkerton, the famous private detective, operated under the pseudonym "E. J. Allen" but while he showed remarkable abilities in the collection effort, his analysis was so bad as to be largely responsible for McClellan losing his command.[4]

Following the Civil War, the Army did little to correct its intelligence deficiencies. In 1885, it did establish a Military Information Division which was responsible for gathering strategic intelligence—mostly from military attachés. The Army also designated a few individuals as intelligence officers by the Spanish-American War era but their duties were mainly topographical in nature, or revolved around reconnaissance. In addition they conducted occasional investigations and maintained files on suspects, but had neither a doctrine nor any sense of a viable mission. The Military Information Division had a checkered career in its development. In the 1903 organization of the General Staff it became the Second Division only to be emasculated in 1908 when it was moved to the Army War College in a blatant and unwise attempt at empire building.[5] Combat intelligence was virtually ignored; indeed the professional journals seemed oblivious to the subject. In 1902 one author dismissed it as "special military information which must be obtained at the cannon's mouth . . . "[6]

The outbreak of war in Europe in 1914 taught us that greater emphasis must be placed on intelligence, especially combat intelligence. Long-range artillery, high explosives and rapid-firing small arms forced dispersal of troops, and extensive use of cover and concealment. Senior commanders could no longer personally observe the entire battlefield due to dispersion and deception. It became vital to refine the systems which provided them with the information they needed to make rational decisions.

When General John J. Pershing landed in France in May 1917, he had only three intelligence officers on his staff but he was already formulating plans for reorganizing the staff system. His chief of intelligence, Brigadier General Dennis E. Nolan, immediately began studying both the French and British systems. From the beginning, General Pershing favored the British system because of its similarities to the American one. Both were operating in a foreign country and coping with a language barrier.[7]

Others were studying the French staff system, and as the American Expeditionary Force was organizing, the *Infantry Journal* printed the table of organization of the current French Infantry division. That structure was virtually identical to today's American staff system. The French was divided into "Bureaus." The Second Bureau was responsible for military information, political affairs and topography. The Third's missions included operations, marches, the war diary and special reconnaissances.[8] The fact that the A.E.F. was mostly in the French sector may have ultimately made the French staff system more attractive.

Although it appears that the Americans took the organization for the staff system from the French, Nolan opted for the British intelligence system. Accordingly, on August 31, 1917 the A.E.F. promulgated the Regulations for the Intelligence Section, General Staff and, on December 14, also issued Instructions for Regimental Intelligence Service. The General Staff regulations closely resembled those of the British, but Nolan reported that the regimental instructions were practically identical to those prepared by the War College. He modified them mainly by increasing the number of persons involved in reconnaissance. The A.E.F. also adopted the theory that all organizations commencing with the battalion should have an organic intelligence capacity to make them independent along their own Front. Although responsible only to their commander, these sections were nevertheless *de facto* interdependent. Each was routinely to inform

Never before World War I had a need for a formal US combat intelligence effort been seen clearly. Compared to the vast, prolonged struggles of 1914–1918, battles in previous wars were of relatively short duration over a limited area. Fronts, even for brigades, were measured in hundreds of yards, and units were close to one another. Even division commanders could keep in personal touch with their forces and had almost instantaneous knowledge of developments to their front and flanks. Consequently it was unnecessary for subordinate commanders to engage in prolonged intelligence-gathering activities. Intelligence then was the responsibility of overall field commanders who created whatever organization they needed on an *ad hoc* basis.

high and adjacent headquarters of all developments.[9]

Before entering combat, the A.E.F. underwent an extensive training program. The experience of the 18th Infantry Regiment of the 1st Division may be taken as illustrative. Upon being assigned intelligence duties, the division and regimental officers assembled at the Corps School for a week's indoctrination conducted by the British. The 18th's intelligence officer also visited the French 77th Regiment to study their methods. The lessons he learned there were applied throughout his Division. The regimental personnel in turn passed their training on to subordinate units. The 18th established a school at Houdelaincourt and for 12 hours a day held classes in map reading, observation, scouting and patrolling, and conducted patrols under simulated battle conditions. The instructor sought to instill an espirit de corps within their students while teaching the skills of their new craft.[10]

The 18th's Program was repeated, with variations, throughout the A.E.F. The Allies aided by allowing American officers to observe their systems at all echelons. Yanks often found themselves detailed for duty with these intelligence sections and gained valuable experience even before American forces were actively engaged. In July 1918, the General Headquarters established the Army Intelligence School at Langres. The staff included the director, six Americans, two French and one British instructors. The graduates (initially 50 per class but later 100) were valuable additions to the US intelligence effort.[11]

While realizing "The basis of combat intelligence was the intelligence personnel with the line troops,"[12] Nolan organized the battalion and regimental S2 sections with an emphasis on gathering information rather than processing it. Each battalion S2 had one officer, 15 scouts, 11 observers, and two chief snipers. At regiment were one officer and eight observers. Nolan discounted the possibility of using combat troops to gather information. The S2 was to cultivate this source but there was no emphasis on riflemen having the duty to report their findings.[13]

In combat, observers were to establish posts for the sole purpose of providing reports on the enemy. The scouts, experts in patrolling and cognizant of the value of intelligence, were to be represented on all raids and patrols. Experience proved the average soldier unwilling to pass information along so scouts accompanied them to ensure that vital data was relayed. There was some opposition to having snipers in the Intelligence Section. The 18th Infantry, for instance, trained two men from each company and turned this duty over to them.[14]

When American troops were fully committed, the intelligence specialists were well-trained but not yet proficient. Realizing the value of prisoners, one of their first actions was a raid in Alsace. For days they applied their newly learned skills in imagery interpretation, observation and planning. The raid went off as planned and would have been successful had there been any Germans in the vicinity.[15] In the beginning, even the prisoners obtained were poorly exploited. One account, perhaps apocryphal, related that the first POW died of bayonet wounds without revealing that his fellows were preparing a surprise raid. On October 1917, the 1st Battalion 18th Regiment captured a mortally wounded prisoner near Bures. Though questioned by both battalion and regiment, he seems to have been more highly valued as a source of souvenirs than of information. Yet the Americans learned their lessons so well that by the end of the war one knowledgeable officer reported that as much as 75 percent of combat intelligence came from prisoners and captured documents.[16]

Although tasked mainly with the mission of collecting information, the S2s proved that they were capable of making accurate and timely assessments when the occasion arose. In one notable incident, the 18th Infantry observed additional enemy batteries and an increase in traffic to its front. On the basis of these and other indicators, the S2 deduced that the Germans were preparing a raid. Using data on artillery locations and their registration fires, he determined the probable objective and the date of the action. The Americans were prepared and repelled the sortie with heavy losses.[17]

The S2 sections also had their problems and failures. It was not unusual to see intelligence specialists serving as headquarters runners or for strictly combat (and sometimes pointless) patrols. Frequently Americans failed to provide the means of getting the information back promptly. The men themselves tended to be overaggressive. One sergeant led a daylight prisoner raid for no other reason than the French had done so a few days before. (He captured both a POW and a machine gun and was thoughtful enough to leave a receipt for them identifying his own unit.) In consequence, Scouts and Observers had a heavy casualty rate. One regiment had to refill each billet seven and a half times.[18]

An experienced intelligence officer afterwards discussed the consequences of intelligence failures of the First World War. At times, front line battalions were sacrificed in a reconnaissance-in-force because intelligence officers had failed to properly utilize either organic assets or resources available from higher headquarters. Lives were needlessly lost when initiative and effort would have served.[19]

Despite the occasional failures that are characteristic of even the most successful campaign, combat intelligence in World War I was generally good. Some units had the ability to deliver a prisoner to the interrogators the first night after receiving their mission. The S2 s realized the value of their calling and assiduously gathered information and sent it to the rear. At all levels, soldiers were capable of analyzing data and drawing accurate conclusions.

General Nolan and his fellows were determined that the lessons learned in war would be preserved. Even before the Armistice, the A.E.F. convened a

board to draw up new American intelligence regulations, based upon the former regulations as interpreted by the experiences of their most successful practitioners.[20]

The peacetime Army remembered its A.E.F. experience. When it adopted new Tables of Organization immediately after the war, it provided for Intelligence Sections at battalion, regimental and brigade levels. Because of reduced personnel assets however, the billet of "Intelligence Officer" became an additional duty below the Division level. At battalion the same lieutenant served as Adjutant, Plans and Training Officer, Supply Officer and Intelligence Officer. At regiment, he was a captain who doubled as the Plans and Training Officer.

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Similarly, the professional literature reflected the military's new appreciation for intelligence. Unlike the prewar years, military journals contained numerous articles on the subject and veterans published two excellent books as well. In 1924 Lt. Col. Walter Campbell Sweeney released **Military Intelligence: A New Weapon in War** and, in 1936, Edwin E. Schwien contributed **Combat Intelligence: Its Acquisition and Transmission.** Since 1918, the United States Army has fought another World War, the Korean Conflict, the Vietnam War, and has engaged in numerous campaigns without materially changing the structure of the S2. Although the Intelligence Section has grown and developed, its origins in the A.E.F. are still apparent.

Footnotes

1. Allan C. Ashcraft, *"A History of Military Intelligence in the United States Army,"* (unpublished research project of the 443rd Military Intelligence Detachment, Bryan, Texas, n.d.), pp. 1–22.

2. **Ibid.**, pp. 87–91.

3. Montgomery Cunningham Meigs, *"Gen. M. C. Meigs on the Civil War,"* **American Historical Review** Vol. XXVI No. 2 (January 1921), p. 301.

4. Bruce Catton, **Terrible Swift Sword,** Vol. II of the Centennial History of the Civil War (Garden City, New York: Doubleday & Company, Inc., 1963), pp. 269–272; James Donald Hittle, **The Military Staff, Its History and Development** (Harrisburg, Pennsylvania: The Military Service Publishing Company, 1944: 3rd edition, Harrisburg: The Stackpole Company, 1961), p. 191.

5. Walter Campbell Sweeney, **Military Intelligence: A New Weapon in War** (New York: Frederick A. Stokes Company, 1924), pp. 3–4; Ashcraft, *"A History of Military Intelligence in the United States Army,"* pp. 159–161.

6. Robert K. Evans, *"The Organization and Functions of a Bureau of Military Intelligence,"* **Journal of the Military Service Institution of the United States** Vol. XXXII No. CXXIII (May–June 1903), p. 318. This was the subject of the Prize Essay Contest of 1902. The **Journal** also published essays by Edwin R. Stuart and T. Bentley Mott with the same title that year.

7. Ashcraft, *"A History of Military Intelligence in the United States Army,"* p. 179; U.S., Department of the Army, **United States Army in the World War**, 1917–1919, 17 vols. (Washington, D.C.: Government Printing Office, 1948, vol. 13, pp. 1–2 & 23.

8. Anonymous, *"The Infantry Division,"* **Infantry Journal** Vol. XIV No. 5 (November 1917), pp. 369–372.

9. **United States Army in the World War**, p. 23. See also C. S. Coulter, *"Intelligence Service in the World War,"* **Infantry Journal** Vol. XX No. 4 (April 1922), p. 376. Coulter reported that after initially adopting the British system it was found necessary to discard it in favor of the "radically different" French.

10. Coulter, *"Intelligence Service in the World War,"* pp. 376–377.

11. United States Army in the World War, p. 11. See also Burton Rodman, *"The Intelligent 27,"* **Infantry Journal** Vol. XLII No. 3 (May–June 1935), p. 223.

12. **United States Army in the World War**, p. 3.

13. **Ibid.**, pp. 2–3.

14. **Ibid.**; Coulter, *"Intelligence Service in the World War,"* p. 380.

15. Captain Intoff (given name not determined), *"A Raid for Prisoners,"* **Infantry Journal** Vol. XXXII No. 3 (March 1928), p. 271.

16. Will Irwin and Thomas M. Johnson, *"The All-Seeing 'I',"* **Collier's** Vol. CXI No. XIX (May 8, 1943), p. 35; Byron L. Paige, "Make the Most of Your Prisoners," **Military Review** Vol. XXII No. 86 (October 1942), p. 44 Coulter, *"Intelligence Service in the World War,"* p. 376.

17. Coulter, *"Intelligence Service in the World War,"* p. 378–380.

18. **Ibid.**, p. 383; **United States Army in the World War**, p. 20; Henry H. Burdick, *"The Battalion Intelligence Section in Open Warfare,"* **Infantry Journal** Vol. XIX No. 6 (December 1921), pp. 677–678; Edwin E. Schwien, *"A Less Expensive Procedure,"* **Infantry Journal** Vol. XLIII No. 1 (January–February 1936), pp. 49–52.

19. **United States Army in the World War**, p. 12.

20. *"The New Tables of Organization, Peace Strength,"* **Infantry Journal** Vol. XVIII No. 1 (January 1921), pp. 66–71.

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Electronic Surveillance and Military Personnel

by MAJ Richard A. Bowman, USAR

Introduction

Electronic surveillance is becoming an ever-increasing threat to the military and to individuals. Moreover, advances in electronic communication equipment have made electronic surveillance easier and safer for those who desire to gather information through the invasion of privacy. In order to protect their careers and their country, military personnel should be aware of the methods used in audio surveillance.

Electronic eavesdropping is so often associated with shady private investigators and foreign espionage intrigue that the typical military person is not aware that he may well be the eavesdropper's next target. The eavesdropper may simply monitor the phone conversations between installations to gather the intelligence that he desires. It is important to remember the telephone is not a secure instrument.

Methods Used in Audio Surveillance

It is a well-documented fact that the Soviets have been gathering vital defense data in the US by using computers to sift through long distance telephone conversations which travel mainly by microwave and satellite. The microwave and satellite transmission of the signalling information and the subsequent conversation can be picked up with an antenna controlled by the Soviets as well as by the receiving antenna that is part of the phone system. Once the signal is received, it is relatively simple to scan the signalling information for telephone numbers of key military offices and defense contractors. Once the telephone number of a military office or defense contractor is identified, the subsequent conversation can be recorded automatically for future analysis. American Telephone and Telegraph's prestigious Bell Laboratory is working on ways to encode ordinary phone calls which would at least hinder this approach.[1]

The Soviet Embassy in Washington is covered with antennas. No one knows for sure what information is acquired and relayed back to Moscow, but a high level US source maintains, according to *Newsweek,* that the Soviets used microwave gear during the 1973 Mideast war to monitor White House conversations with the Pentagon, the State Department and the CIA.[2]

The methods used in audio surveillance vary in sophistication from the primative telephone wiretap to exotic radar. However, majority of listening devices fall into either the direct wire method or the radio frequency method. The direct wire method physically connects the listener with the individual being bugged, while the radio frequency method utilizes a radio transmitter to physically separate the listener from the individual being bugged.

The most obvious method of eavesdropping is the telephone wiretap and plated microphone. Although recent developments in electronics have antiquated the telephone pickup coil and the direct wiretap, the government and amateurs still use these techniques. The KGB professional in audio surveillance is more likely to use the telephone as a place to hide a "bug" which transmits the conversation at radio frequency.

The Telephone Wiretap

The classic snooping device is the wiretap because it can be done by almost anyone with a basic knowledge of the telephone. The main disadvantage to this sytem is that it requires wires leading to the investigator or his tape recorder, thus risking his detection.

The mere presence of a telephone in an office or briefing room provides a means of surveillance. The personnel entering the briefing room may be screened for security clearances. However, a so-called "harmonica bug" may have already been planted in the room. This bug consists of a sub-miniature resonant reed decoder relay and a miniature single-stage audio frequency amplifier; it is wired into the phone or the terminal block on the premises. Operation of this bug is about as state-of-the-art as eavesdropping suppliers can provide today. In use, the eavesdropper dials the rigged remote telephone. However, just after dialing the last digit, there is a time lapse of 2 to 3 seconds before the remote phone bell rings. During this period, the eavesdropper transmits his trigger tone down the line with either a blow-in harmonica-type device or an electronic oscillator. The remote bell is deactivated before it can ring, and the remote microphone signal is now amplified and fed back to the eavesdropper. If another party dials the number during a period of surveillance, he will get a normal "busy" signal. In most cases, this does not arouse suspicion.[3]

It is a well-documented fact that the Soviets have been gathering vital defense data in the US by using computers to sift through long distance telephone conversations which travel mainly by microwave and satellite.

Existing Wiring

The existing 110-volt power system in all buildings can be used with a 110-volt transmitter to bug any briefing room, office or home. The transmitter is concealed behind any wall outlet, and the screw that holds the wall plate to the outlet contains the microphone. Instead of transmitting through the air, the transmitter sends its signal back through the 110-volt system. The sound signal can be picked up by plugging a compatible receiver into any other electrical outlet in the building. The transmitter runs off the 110-volt system and therefore requires no batteries and transmits the conversations in the room as long as the power is on. This system avoids using the telephone or radio frequencies, the mediums most frequently checked by security personnel.[4]

Concealed Microphones

One method of detecting bugs is

through the use of metal detectors which sense the presence of the metal of which the bug is made. A building being constructed can be bugged by placing the protected microphone on the steel reinforcing rods; the microphones then cannot be located with metal detectors and even remain active if concrete is poured over them. Very thin wires, or even conductive paint, are run from the microphones, along steel girders and reinforcing rods, to water and sewer pipes to monitoring posts well away from the building. This was one of the discoveries made in 1964 in the US Embassy in Moscow and in a brand new US Embassy in Warsaw, Poland.

The Spike Microphone

The spike microphone is a steel nail that is hooked up to an amplifying circuit. It is nothing more than a vibration or conductance device which is an extension of the normal contact surface. A special shotgun can shoot the spike microphone into the frame of a window or door and transmit private conversations to the eavesdropper.[5] The spike microphone can also be driven into walls of rooms to listen to the activities in adjoining rooms.

Shotgun and Parabolic Microphones

Giant saucers were first seriously developed during World War II, before radar, and proved to be more sensitive than the human ear in detecting approaching aircraft. The microphone was placed in the focal point of a reflector, with a diameter of at least three and preferably six feet. This somewhat cumbersome device can be concealed behind bushes or in darkness has a range of between 500 and 1000 feet.

The shotgun type of microphone is currently being used by TV networks to pick up the voices of questioners at presidential press conferences, to pick up the sounds of distant bands and to pick up, from the sidelines, the voices and sounds of body impact of players at football games. The National Football League has banned it because it was broadcasting too many obscenities.[6] However, the commander in the field should be aware of the possibility of his briefing being overheard through the use of such a device.

The "Great Seal Bug"

Military personnel with diplomatic duties face a special problem as is illustrated by the occasion when US Ambassador Henry Cabot Lodge shocked the civilized world in 1960 when he displayed the now-famous Great Seal bug at the UN. It had been in operation, surreptiously relaying confidential top-level conversations to the Soviets since they had presented it to W. Averell Harriman, the United States Ambassador to the Soviet Union, back in 1945. It was not alert American personnel who "found" the bug, but instead astute British technicians who accidentally tuned across its frequency one day.

The value of this system was that it required no maintenance, batteries, or other internal power supplies and it operated only when the cavity was supplied with an accurate source of radio frequency that could come from almost any point.

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Outside the Embassy, a 330-MHz signal source, located within an ordinary-looking van, was aimed via a narrow-beam gain antenna at the Seal so as to excite the cavity. Another innocent-looking van, also equipped with a narrow beam gain antenna aimed at the Seal, would then tune in on the bug and detect the now-modulated signal for recording.

When the Great Seal bug was discovered, technicians also found more than forty sensitive microphones buried ten inches deep in the walls of offices and living quarters. Hollow wooden tubes, their open ends covered only by the wall's plaster, carried the sound to the microphones. The metal detectors, which were used to locate listening devices, could not detect the wooden tubes which carried the sound out of the range of the metal detectors to the metal microphones.

In 1976 the Soviets reduced the level of microwave bombardment of the US Embassy in Moscow. This was in response to questions raised concerning the health of the Embassy personnel. However, recently officials conducting a security check discovered a passageway beneath the embassy building and surprised a Russian maintaining surveillance equipment. The passageway connected an air shaft and a chimney containing listening devices. Military personnel with diplomatic duties should expect to have their activities under surveillance.

Typical FM Bugs

By and large, the most popular method of audio surveillance is through the use of miniature microphones connected to small FM transmitters. The FM bug is popular for several reasons. Probably the best reason for its popularity is that it is small and easy to conceal. Except for laboratory developments, the smallest commercially available bug contains a single radio frequency transistor, is powered by a flat hearing aid battery, and measures 1" x ¾" x ¼". It requires an antenna wire and has a maximum range of about 200 feet.

Limited by the size of the external components required (battery, microphone and antenna), the introduction of integrated circuits heralds the day of the really small, easy-to-conceal bug.

A picturesque example of the advances in miniaturization was discovered by a military attaché at a Moscow bar when he picked up a martini not intended for him. The "olive" in it, according to a *Time* account contained a transmitter, and the tiny toothpick stuck in it was an antenna. The range of the olive transmitter was about 50 feet.[8]

Planting the FM Bug

The FM bug is not only easy to conceal, but is easy to plant in a room. Once it is in place, it is hard to determine who is doing the bugging, and thus its use is relatively safe. Since the FM bugs are relatively cheap when compared to the risk of recovery, the bug is usually left behind after the surveillance job is completed rather than risking another entry to recover the bug.

The telephone affords an ideal place to hide a bug because of the various electronic elements already present. The most popular radio frequency devices hook directly to the phone line in one way or another. The most convenient of these consists of a transistor oscillator centered on 89 MHz and mounted on the backside of a standard carbon phone button. Carefully balanced so as not to disrupt the impedance of the telephone circuit, the eavesdropper merely unscrews the regular mouthpiece cap from the phone and replaces the carbon button with the bug. Thus, both sides of the phone conversation are radiated a distance of approximately 300 feet; this does not impair normal phone operation.

The typical insertion bug mounts

directly within the microphone cavity of the telephone and derives both its power supply and modulation from the phone as it is being used.[9]

Detecting Direct Wire Bugs

The most direct method of locating listening devices is through the use of a metal detector. Metal detectors, however, have their drawbacks, since metallic wall studs, steel reinforcements, and even finishing nails will register positively, necessitating a meticulous checkout of every reading. Metal detectors can locate hidden microphones and FM bugs by sensing their metal content if the general area does not have a great deal of metal. In order to check for hidden, non-radio frequency devices without a metal detector, simply look for wires in concealed places; then all wires should be checked in order to determine if they are connected to a listening device.

Radio Frequency Detectors

Radio frequency field detectors may be quite simple and yet will work in close proximity to a concealed transmitter. The most widely accepted device today is known as the feedback detector. Nothing more than a tunable, broadband (40 to 300 MHz) receiver with speaker output, the gadget screams with feedback in the presence of a tuned-in room bug.

Beware of the Telephone

Telephones seem to be a favorite place to conceal a bug. If the telephone line is not tapped, the telephone itself may contain a bug. In general, avoid using the telephone unless you have to, and when you must make an important call, use a public telephone. But remember, do not use the same public phone for all the important calls you make or that phone may soon be bugged.

The practical solution is to use "scramblers." These electronic devices fit the mouthpiece and earpiece of the telephone; a matching unit is used by the person at the other end. The scrambler mixes up the conversation by changing tones according to a preset code, and the matching unit decodes the scrambled signal. To insure the privacy of data transmissions, the Army has recommended a Protected Wireline Distribution system or Intrusion-Resistant cables.

The Ultimate Security

For the greatest protection against electronic eavesdroppers, some military and governmental agencies have resorted to building a room within a room. It is actually a small metal, wood, and plastic box large enough to hold several people seated around a table. This windowless room sits on legs, and is somewhat short of the larger room's ceiling. The walls of the secure room are designed so that they do not transmit sounds and they are electronically shielded. In addition, random noise generators operate in the larger outside room. The door to the secure room cannot be opened to admit a newcomer to a meeting until a red light first has flashed and the occupants have stopped talking.

Government Agencies Snoop

Unfortunately the military officer must be concerned with governmental and private surveillance as well as foreign espionage. Army Regulations prohibit electronic surveillance of any individual or organization except as authorized by law and regulation.[10] However, Bernard Spindel, America's foremost private expert on electronic eavesdropping and wiretapping, has commented as follows on government bugging:

> "From my experience, I can say flatly that 90 percent of all illegal wiretapping and eavesdropping that goes on in the United States is done by law enforcement people using the cloak of their office to get in where the private individual would be barred."[11]

Senator Edward V. Long presided over the Senate Subcommittee on Administrative Practice and Procedure. This committee held intensive hearings on the invasion of privacy by government agencies. Senator Long reported, "Federal agents are embarked on a nationwide campaign of wiretapping, snooping and harassment of American citizens."[12]

Snooping by federal agencies is not restricted to the CIA or FBI. Testimony presented to Senator Long's subcommittee brought out the fact that agents of the Treasury, Internal Revenue Service, Narcotics Bureau, Food and Drug Administration, and the military services have engaged in snooping activities without legal authorization.

Individual Eavesdropping for Fun and Profit

Anyone with a soldering iron and ten dollars can build a bugging device. In fact, a complete FM wireless microphone is available from most electronic supply stores for about $19.95. The device measures 6" x 1" x 1½" and broadcasts up to 90 feet to any FM radio.[13]

Conclusion

The very nature of military activities makes the military person a target for electronic surveillance. By associating apparently innocuous pieces of information to that already known, unauthorized persons may be able to piece together the details of otherwise secure information. Military personnel risk surveillance by foreign and domestic governments and by private individuals. The individual wishing privacy should be aware of the methods used in surveillance and the means by which they can prevent the invasion of their privacy.

A military person can prevent the invasion of his privacy by: following the guidance given in the Regulations; using a metal detector to find the bugs; being careful in using the telephone, as it is a favorite place to conceal a bug, or because it may be tapped; using radio frequency detectors to find a radio frequency bug; using a safe room, namely a room within a room, for the greatest protection; and by never saying anything on the telephone that he wouldn't want to be confronted with later.

Footnotes

1. Richard A. Schaffer, "Companies Use Codes to Ward off Thieves and Safeguard Secrets," *The Wall Street Journal*, June 16, 1978, pp 1. The article describes the need for secure means of transmitting data and the Data Encryption Standard (DES) developed by IBM—it could take hundreds of years on the largest computers available to break the DES code. **Army Regulation 380-380**, "Automated Systems Security," 14 October 1977, contains in Chapter 5 specific requirement for communications security for EDP systems communications.

2. "We Still Need Spies," *Newsweek*, June 26, 1978 pp 41.

3. Larry Steckler, "Outwit the Electronic Eavesdroppers," *Popular Mechanics*, December, 1965, pp 74.

4. Edward V. Long, "You Ought to be Left Alone," *Esquire*, May 1966, pp 102.

5. Edward V. Long, **The Intruders**, (New York: Frederick A. Praeger, 1967), pp 56.

6. Vance Packard, "The Invasion of Privacy," *The Atlantic Monthly*, February, 1964, pp 59–60.

7. Lars Jorgensen, "Spy in the Tie," *Electronic Hobbyist*, 1968 Edition, pp 55–57. The tie clip microphone and FM transmitter illustrated in this article is typical of the wireless microphones found in many electronic construction magazines. However, the FCC has recently withdrawn authorization for operation of minimum performance radio frequency oscillators utilizing the FM Band.

(continued on page 58)

Combat Developments

Advanced Course Analysis Program

USAICS' Directorates of Combat Developments (DCD) and Training (DOT) recently initiated a program allowing Military Intelligence Officer Advanced Course students to assist in the analysis of DCD studies. Through the Advanced Course Analysis Program (ACAP), Advanced Course students can contribute to the Army's intelligence combat developments effort.

DCD provides topics for analysis and research to Advanced Course students. Studies are prioritized in order of completed, current and possible future studies. Students select topics, conduct research and perform an analysis which begins with the identification of current doctrine and concepts and is followed by an evaluation of the data provided by the study. Results of the analysis provide combat developers with identified shortfalls, duplications and recommendations in Army intelligence doctrine, concepts and systems.

The Directorate of Combat Developments integrates the student research results through an automated information management system. The automated data base provides an executive summary of DCD studies, a comparison of study capabilities to current concepts and doctrine and centralized management of DCD studies.

The ACAP gives Advanced Course students the opportunity to satisfy writing/research requirements while gaining insight into future Army programs and an appreciation of inevitable automated data processing efforts. Most importantly, it allows company grade officers to use past field experience to play an important role in combat developments.

Weather and the Intelligence Staff Officer

Weather. You can see it, feel it, complain about it. But as an intelligence staff officer (G2/S2), you really need information on it.

Weather is an essential part of combat intelligence and is one of the bases for estimates by the commander and staff. History is replete with examples of how "Mother Nature" has affected the outcome of skirmishes, battles and whole campaigns. In today's fast-paced, highly-lethal scenario, weather cannot be left to chance. The G2/S2 must join forces with the USAF Staff Weather Officer (SWO) to ensure that weather information is effectively integrated into mission and operational planning.

Typically, the intelligence officer knows that the SWO is an Air Force officer, a "blue-suiter" attached to the Army as a member of the commander's special staff. The SWO commands the USAF weather team (WETM) providing weather products to the supported command. That covers it, right? Wrong!

To effectively integrate weather into the intelligence process, the G2/S2 must know much more about the organization and operation of the SWO and his WETM.

- What are the responsibilities of the SWO/WETM?
- What weather information can he provide for mission planning?
- What does the SWO and his WETM require in support from the Army to function?
- How is weather information disseminated from the SWO/WETM?

If you already know the answers to the above, congratulations. Chances are you have weather well in-hand and this article will be a short refresher. For many, however, the answers to these questions will be the first step toward improving the quality of weather support to the commander.

Again, the Staff Weather Officer is a member of the commander's special staff under the general staff supervision of the G2/S2. The SWO coordinates the command's weather support activities, working directly with the commander and staff on weather support requirements. Responsibilities include:

- Advising the commander on weather support matters, including advice on the potential use of weather support to enhance the efficiency of combat operations.
- Maintaining an understanding of the mission, organization, equipment and operational commitments of the supported command.
- Assisting in determining weather support requirements and advising the Air Force of these requirements.
- Preparing weather annexes to plans of the supported command.
- Requesting and/or preparing climatic studies in support of operations.
- Informing the supported command of Air Force weather support capabilities and limitations, and effective methods of using this support to plan and carry out operations.
- Developing weather support procedures, training of Army personnel to use and understand weather information, preparing and presenting weather lectures, and developing the weather portions of training literature.
- Assisting in arranging for remote weather support (no direct interface with SWO or WETM) to units of the supported command.
- Disseminating selected weather data to higher and lower echelon Air Force weather units.
- Disseminating Air Force-generated forecast products to the G2/S2 or designated representative.

"What weather support can the SWO/WETM provide?" Wrong question. Ask yourself, "What weather information do I need to integrate weather into mission and operational planning?" If a graphic display of fog on a given piece of terrain or a three-hour forecast of low clouds obscuring a specific hill is required, inform the SWO of your needs. If you don't, you may not get what you require, or you may through the efforts of a conscientious SWO or just plain luck. Determine your need and a time frame for these requirements. Then go ask the SWO.

The SWO can help along the way. He can assist in defining your weather support needs, and he works with the WETM in providing the information required. If the required support cannot be generated "in-house," he can call upon the resources of the Air Force Global Weather Central (AFGWC) at Offutt Air Force Base, NE and the USAF Environmental Technical Applications Center (USAFETAC) at Scott Air Force Base, IL. These "weather centers," among the most sophisticated in the world for production of weather products, cannot do a thing until you state what you want.

To function as a weather support element in the tactical environment, the SWO and his WETM rely entirely on the Army for support. They are attached to the Combat Electronic Warfare Intelligence (CEWI) Group at corps and the CEWI battalion at division for billets, mess, administrative support relative to Army functions, and training, logistical and communication support.

The timely dissemination of weather information is the responsibility of the intelligence staff officer. Telling the sig-

nal unit that 50 knot winds beginning at 1000L could destroy their antenna may do no good if the forecast is received at 1200L.

Effective weather support is a cooperative effort. The G2/S2 and the SWO must work together to ensure that weather is integrated into the intelligence process. While weather information can be a force multiplier, ignoring weather in favor of threat or terrain analysis can be disastrous.

Remember (with apologies to Benjamin Franklin), some G2/S2s are weatherwise but most are otherwise. Work with the Staff Weather Officer to make yourself one of the former.

Joint Interoperability

Joint interoperability is the goal of all DOD services. The program instituted to achieve this goal, Joint Interoperability of Tactical Command and Control Systems, (JINTACCS), will develop products, procedures and standards in the pursuit of interoperability.

In 1969, the seeds of JINTACCS were sown by the Joint Chiefs of Staff in the GAMO Program—Ground and Amphibious Military Operations—a joint effort directed at the 1980's. By late 1977, the Secretary of Defense had reorganized and renamed the program and JINTACCS was born. The Army's Chief of Staff has been the Executive Agent since 1969.

JINTACCS products include a family of documents including the Technical Interface Design Plan (TIDP) and the Interface Operating Procedures (IOP). Central to the interface designs (in the TIDP) are the numerous standardized message formats for use in tactical operations intelligence, air operations, operations control, amphibious operations and fire control.

For intelligence operations, 25 messages have been formatted to JINTACCS standards. Since the intelligence TIDP is currently undergoing compatibility and interoperability (C&I) testing, some messages may be changed or deleted. Changing, deleting and adding messages is possible under the configuration management (CM) program.

A JINTACCS-formatted message is made up of sets and fields of prescribed lengths to fit the allowed data entries. Each data entry is numbered to cross reference the Message Element Dictionary (MED) where a message writer finds all the approved entries and their codes.

Message design rules, in an annex to the TIDP, permit the use of free-text sets in JINTACCS messages. But the free-text sets are kept to a minimum due to difficulties associated with processing data in narrative, unstructured formats.

Learning to use JINTACCS formats is no more difficult than learning new SOP and formats at a new duty station. Importantly, once learned, the formats will not change from command to command. Although local commands may govern intra-Army use of JINTACCS formatted messages by SOP, when the messages cross a joint interface, no deviations are allowed.

One advantage to the structured message is that the format calls attention to the required data sets and fields. One disadvantage arises in the manual use of machine-design products—the machine is unforgiving if a soldier uses the incorrect code, misplaces a correct code or omits a required entry.

Some of the rules established by the IOP govern the circumstances for usage of each message, originator, classification, precedence, time due at addressee and method of transmission. The only way to change the IOP, as with message formats mentioned above, is through the configuration management (CM) plan.

In the CM process, a concerned service/agency submits a Developmental or Operational Interface Change Proposal (DICP/OICP) which is evaluated by the other services/agencies, and may be subject to three levels of boards before approval by the JINTACCS Program Director.

To develop any new system, many standards must be applied to both the machine and the associated supplies and activities. To that list of standards emerging JINTACCS standards are now being added.

JINTACCS standards are said to be emerging because the ongoing nature of the JINTACCS Program has resulted in standards being forged by the many Technical Coordinating Committees (TCC) and the C&I testing activities. Later, interoperability standards will be demonstrated in a series of Operational Effectiveness Demonstrations (OED). But there is another source of standard development.

The JINTACCS Program itself is evolving as an "umbrella" program and is acquiring, in wholesale blocks, standards from other programs. To name a few, JINTACCS will use standards developed by the Joint Tactical Communications System (TRI-TAC), the Joint Tactical Information Dissemination System (JTIDS) and the Position Locating and Reporting System (PLRS). In addition, the NATO STANAGS are used. (The ultimate interoperability objective is to be NATO-wide, a vast JINTACCS Program target.)

To paint a picture of implementing JINTACCS products, procedures and standards is not easy. Simply, a program so far-reaching cannot be initiated in everyday operations at some J-Day. JINTACCS standards are already being applied to ongoing systems development. Some services have begun to use JINTACCS products in intra-service and joint exercises, and are only a decision away from everyday operational usage.

The Army lags other services in the JINTACCS Program—not in ability to learn and use its products, procedures and standards—but, in development of the C3I systems with which to implement it. The activity of engaging a target "eyeball to eyeball" does not lend itself to automation nearly so readily as engaging a target by remote control.

Much activity is underway in the JINTACCS development process. Its final form may yet be discovered. But it must be said, "JINTACCS is here to stay!"

ASAS Update

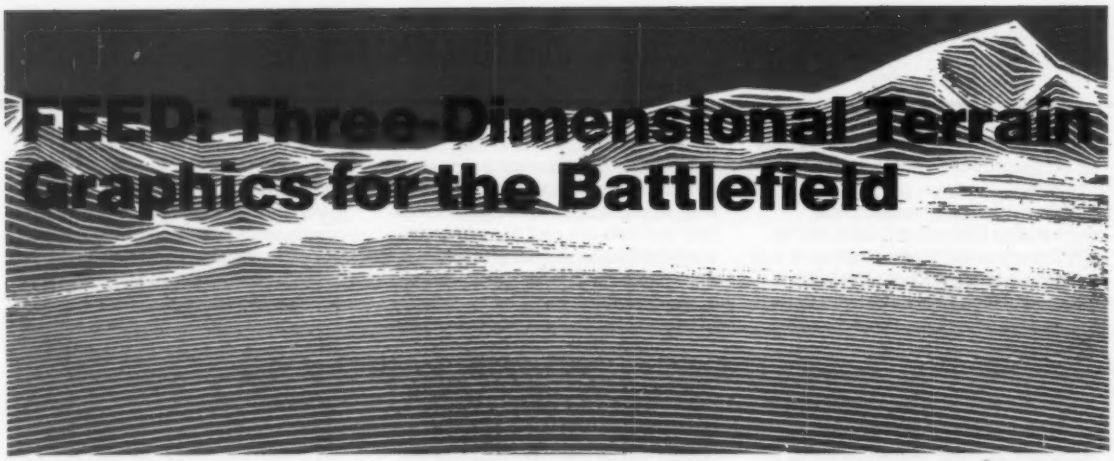
by 1LT Karen S. Palletti

The All Source Analysis System (ASAS) is an automated processing system that integrates and reports information from collection, location and detection devices. The primary ASAS functions are collection management, target development, intelligence development, support to operations security, and support to electronic warfare.

The ASAS mission includes responding to the commander's information needs; tasking and controlling collection and ECM assets; processing and

(continued on page 58)

Special thanks to the authors of this issue's Combat Developments updates and to Ms Anne Bregman, DCD, USAICS, for coordinating their input.



FEED: Three-Dimensional Terrain Graphics for the Battlefield

by CPT Thomas O. Tindall, Jr.

Introduction

The commander's knowledgeable use of terrain is critical to success on the battlefield. To effectively use the terrain, the commander must be able to see it clearly. In this respect, a battlefield graphics computer system providing the commander with a better means of visualizing and analyzing terrain within his area of responsibility could prove vital to combat survival and success. Such a computer system is being assembled by engineers and scientists at the US Army Engineer Topographic Laboratories (ETL), Fort Belvoir, VA. The experimental system is called Field Exploitation of Elevation Data (FEED). This article will describe FEED, its products and uses.

Computer-generated maps and map-like graphics are valuable sources of tactical terrain information. In an article appearing in the July–September issue of *Military Intelligence*, "Three Dimensional Computer Maps and Graphics: New Tools for Terrain Analysis," CPT David Bowen provided an outstanding overview of the rapidly advancing field of computer-generated terrain graphics. Bowen examined various terrain representations and proposed possible uses for them by the field commander while pointing out that terrain graphics must be examined and used by commanders and their staffs *in the field* if the true potential of this technology is to be assessed. FEED is designed to meet this need by demonstrating in the field the production of terrain graphics.

Review of the Technology

Before discussing the specifics of FEED, it is important to consider the technology leading to the development of computer-generated terrain graphics.

In the past 20 years, the military and civilian mapping communities have conducted considerable research in an effort to automate the process by which standard topographic maps are produced. One method involves the processing of elevation data into the familiar contours appearing on topographic maps. Before being processed into contours, elevation data is usually represented by numerical values associated with a particular location on the surface of the earth. Various methods have been employed to acquire elevation values. Most result in the sampling of elevation values at regular intervals ranging from three to 100 meters between points on the surface. Figure 1 depicts a hypothetical portion of the earth's surface. Sampled elevation points lie at the intersections of the grid lines. Elevation values obtained for a particular area and stored on magnetic tape (or some other computer storage medium) form a digital elevation data base (DEDB).

ETL is at the forefront in developing computer software and hardware for the display of digital elevation data. Initially, research was conducted to validate data bases and provide a capability to delete or change erroneous data interactively. Now there is increasing interest in the DEDB-dependent special map-like products, such as three-dimensional terrain presentations, perspective views and

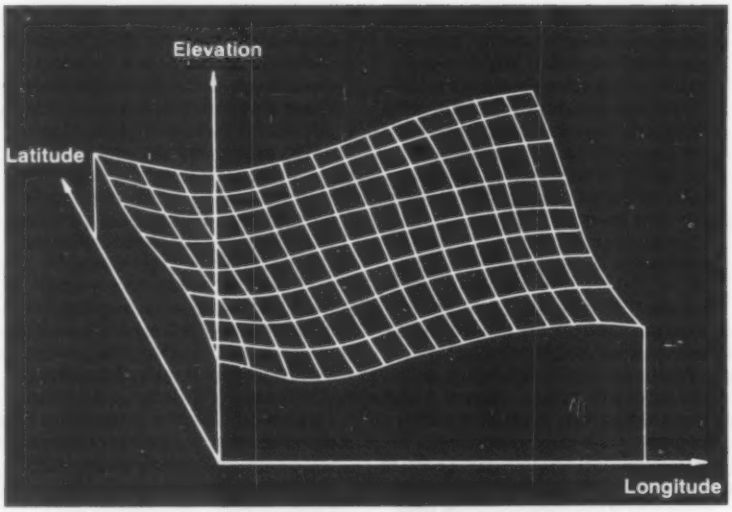


Figure 1. The digital elevation data base (DEDB) covering the hypothetical area shown above would contain elevation values at the grid line intersections.

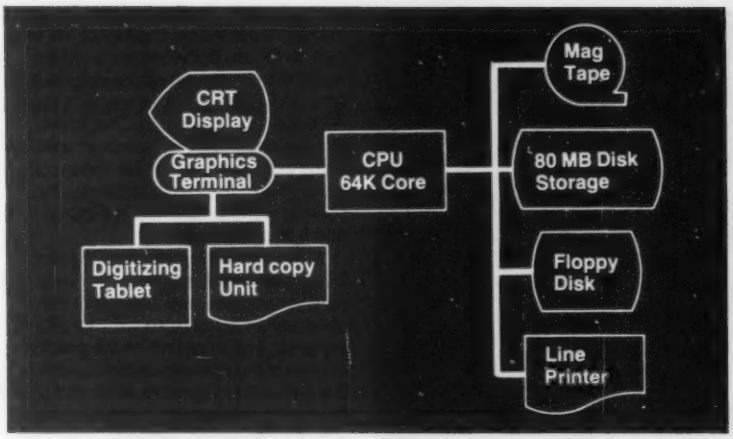


Figure 2. FEED system computer components.

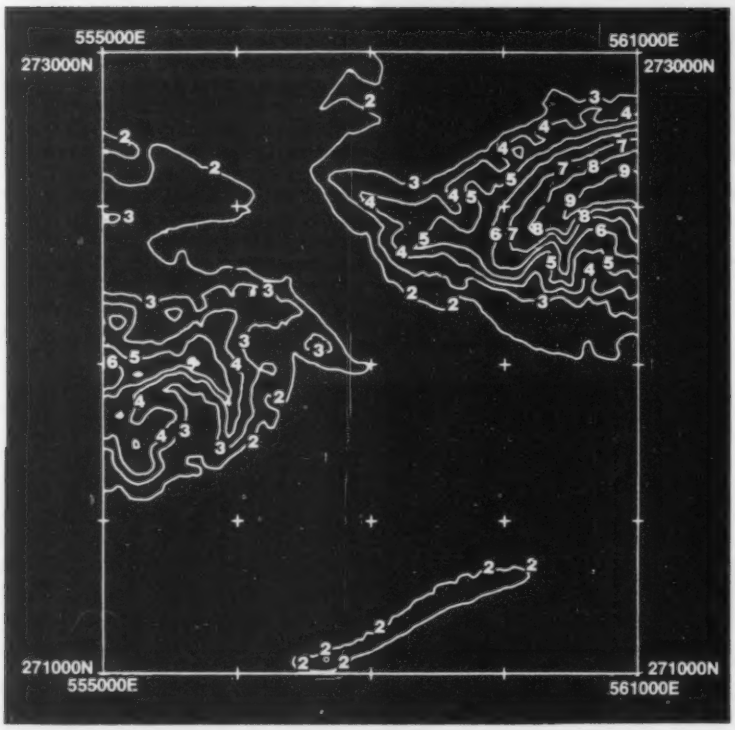


Figure 3. Contour plot. Codes for contour values appear in Figure 10.

radar and weapon systems line-of-sight masking graphics. Specific research efforts have been initiated in the area of terrain graphics. Examples of these graphics are presented in this article and the Bowen article.

Key Developments Leading to a Field System

ETL is not alone in this area of research. Among others, the Computer Graphics Laboratory, West Point, New York; the Electromagnetic Capability Analysis Center, Annapolis, Maryland; and the Combined Arms Center, Fort Leavenworth, Kansas, have been very active in computer-generated terrain graphics research. This and other computer-related research has led to three significant developments which make field demonstration systems like FEED feasible.

First, in the area of computer software, recent advances in approximation and interpolation techniques have accounted for improved computer graphics algorithms which have, in turn, made possible near-real-time display of the graphics. The improved algorithms have also increased the efficiency with which the huge data bases are processed. Terrain graphics which once could only be produced on large machines are now produced on minicomputers. For an idea on how much data the computer must handle, consider a DEDB with 12.5 meters between elevation points. To cover a 10 kilometer square area, our DEDB must contain approximately 640,000 elevation points. In the typical DEDB, each elevation point requires 16 bits of computer storage space. Thus 10,240,000 bits are required just to store the data.

Second, in the area of computer hardware technology, advances in miniaturization have made possible the production of very powerful, highly compact and rugged minicomputers. For many applications, minicomputers are as capable as the large fixed-installation computers which can only be used in humidity- and temperature-controlled environments. These minicomputers are designed for mobile operation under varying conditions and make possible the reliable processing of 3-D terrain graphics on the battlefield.

The widespread coverage of elevation data now available is the third important development. DEDBs have been prepared for all of the United States and Central Europe. By the end of fiscal year 1982, DEDBs will be available for essentially all of Europe and Asia, allowing FEED to produce graphics in support of operations conducted almost anywhere in the world.

The FEED System

Figure 2 is a schematic drawing of the components of the FEED system. The central processing unit (CPU) is the heart of the system. Commands are entered into the system at the graphics terminal while the cathode ray tube (CRT) display provides a screen for viewing the graphic as it is produced. The digitizing tablet allows the operator to annotate or modify the graphic appearing on the screen, while the hard copy unit provides a paper copy of the graphic. The magnetic tape unit is used to load the system with elevation data for the area of interest. The working elevation data and programs are stored

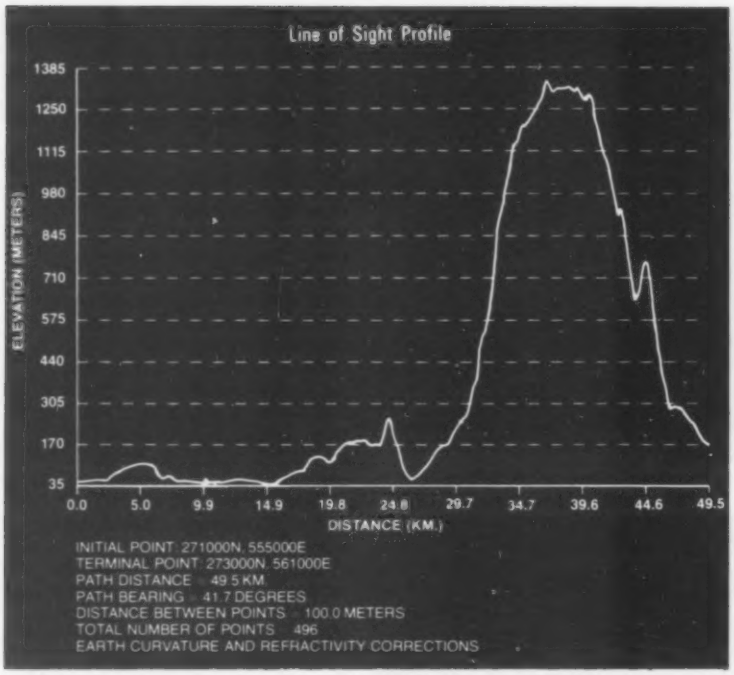


Figure 4. Line-of-sight elevations along a line between the lower left and upper right corners of the contour plot.

on the 80-megabyte disk storage unit. The floppy disk primarily provides back-up capability, while the line printer is strictly an alphanumeric output device.

Software programs enable FEED to produce a variety of terrain graphics. Examples of products FEED can produce are shown in Figures 3 through 10. Each depicts a 35 square kilometer area of Iran. For all of the graphics, scale is a variable which the operator can manipulate to meet the needs of the user. All three-dimensional views in this article incorporate a 5:1 exaggeration of the vertical dimension. Figure 3 is a contour plot. The value of the individual contours is given by numerical code, and the contour interval is an operator-controlled variable. Figure 4 shows an elevation profile which can be generated and displayed between any two points in the area of interest.

Figures 5 through 9 are examples of perspective and oblique three-dimensional views. The perspective view represents the terrain as would be seen by someone viewing the actual terrain. Parallel lines converge at the horizon and scale varies throughout the graphic. With the oblique view, on the other hand, scale remains constant and parallel lines do not converge. The observer's position and direction of view are variable for both graphics. Figures 5 and 6 are perspective views of the terrain. In Figure 5, the viewer is on the south side of the terrain looking north while in Figure 6, the viewer is on the north side looking south. The three-dimensional effect can be produced by using either parallel profile lines, contours or grid lines as is shown by the oblique views presented in Figures 7, 8 and 9, respectively.

Figure 10 is a terrain masking plot. The operator selects the observer's position and the computer plots the observer's horizon on a contour plot of the area. The thick line on the graphic depicts the observer's horizon, while the radial line segments enclosed by the horizon depict areas masked from view by interfering terrain.

These are just a few examples of FEED products. These products can be very effective on the battlefield. In addition to their use as general planning tools for terrain analysis, many specific uses can be identified. For the purpose of mission control, these graphics could help commanders locate favorable positions for communications facilities. For fire control, they could facilitate the positioning of forward observers. They could be used to position direct fire weapons and short-range radars. They could assist in the planning of flight routes and ground routes that are masked by terrain from the direct fire of enemy weapons. The FEED system

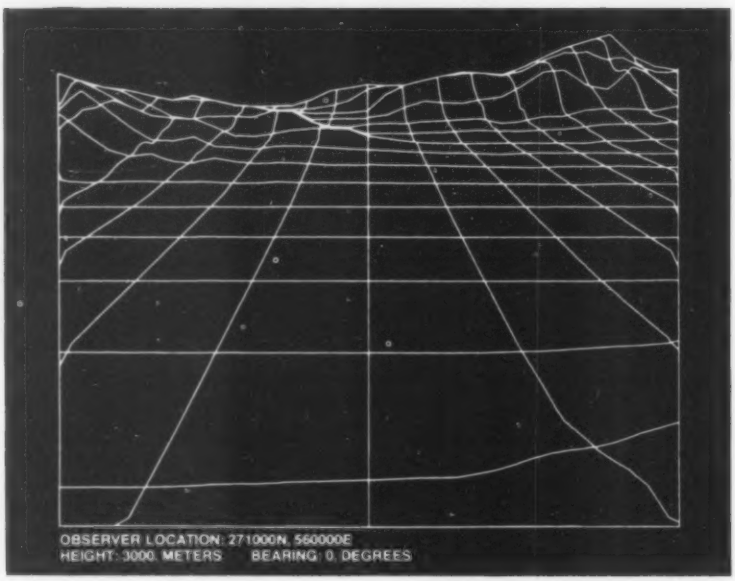


Figure 5. Three-dimensional perspective view to the north.

Figure 6. Three-dimensional perspective view to the south.

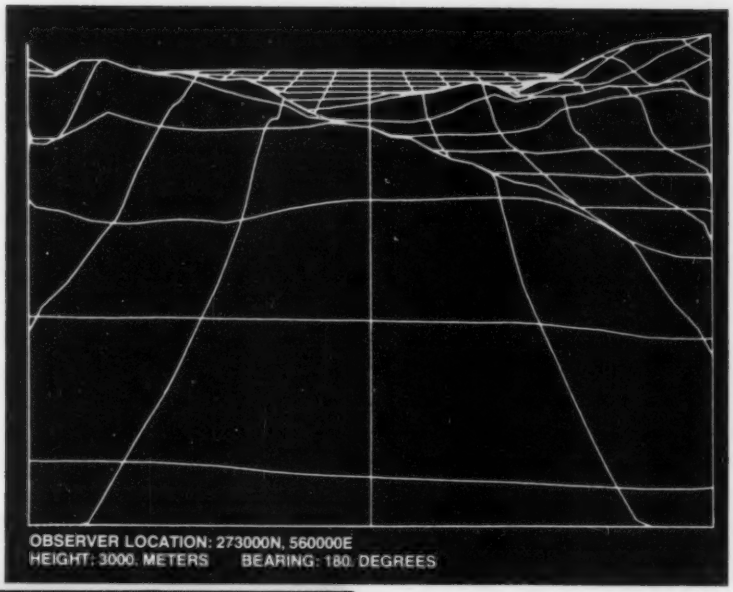


Figure 7. Three-dimensional oblique view using parallel profile lines to depict relief.

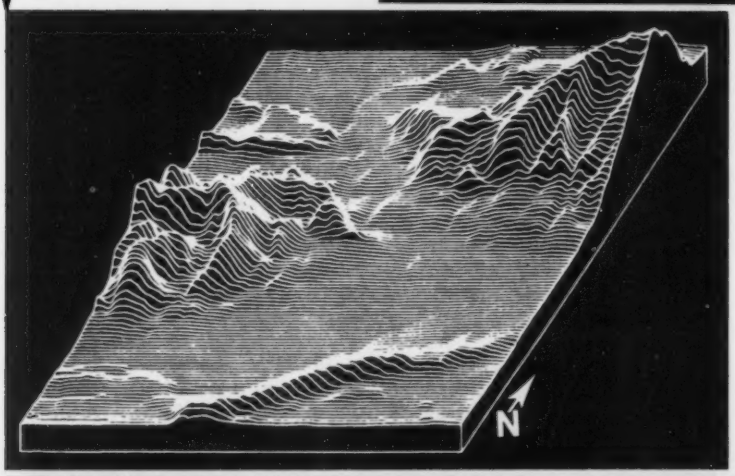
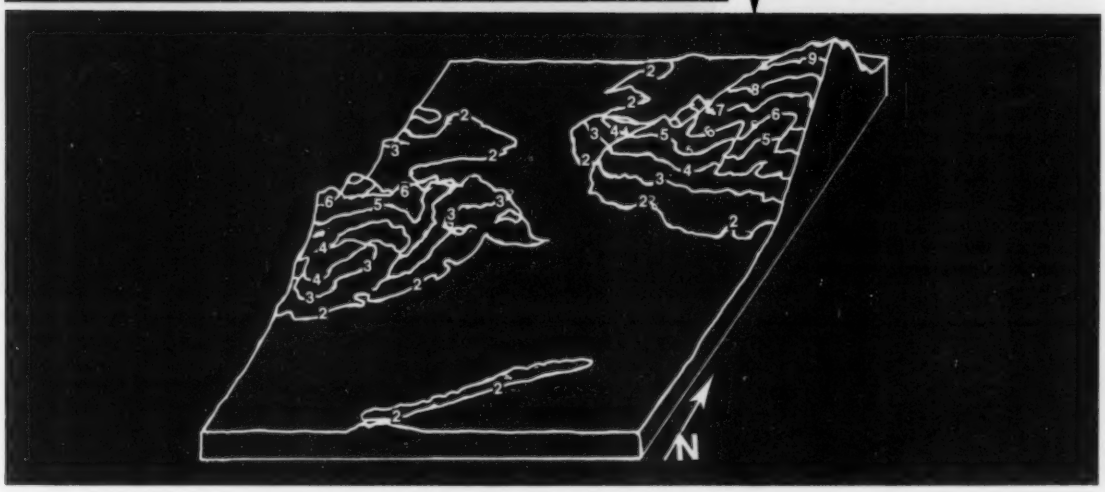


Figure 8. Three-dimensional oblique view using contour lines to depict relief. Contour line codes are shown in Figure 10.



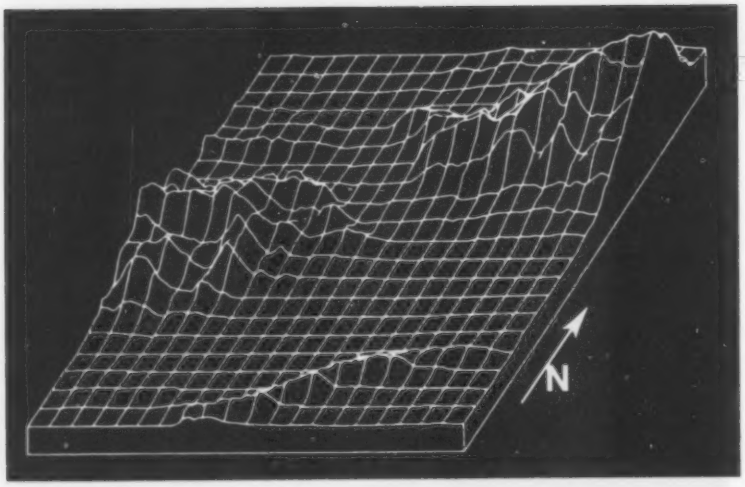


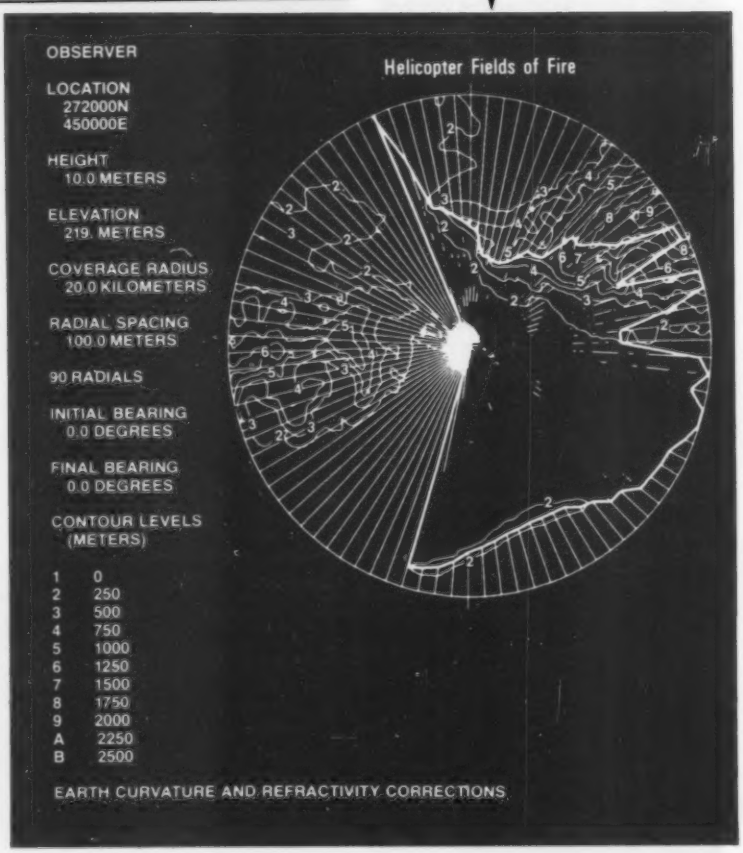
Figure 9. Three-dimensional oblique view using one-minute geographic grid lines to depict relief.

Figure 10. Terrain masking graphic or overlay.

can address almost any problem involving determination of intervisibility on the battlefield. FEED could also be a useful tool for war game exercises and other simulations.

FEED can handle either Universal Transverse Mercator (UTM) or geographic coordinate data bases. This is significant, since most laboratory systems are dedicated to one or the other but not both. The availability of either data base is limited (particularly UTM). Coverage available when using both is extensive. FEED converts UTM to geographic and vice versa. All graphics can be overlaid with UTM or geographic grids. All graphics produced by FEED can incorporate corrections for the earth's curvature and atmospheric refraction, providing the high accuracy necessary for positioning certain weapons systems.

It is envisioned that a fielded version of FEED would be deployed down to brigade or, possibly, battalion level. The fielded version could be configured to fit into an S-280 shelter and mounted on a 2½-ton truck. The experimental system described in this article is mounted in a camouflage painted civilian-type van. Although mobility in rough terrain is somewhat limited, participation in field exercises by this experimental system is a distinct possibility in the near future. It is anticipated that FEED will be available for field demonstration by late summer.

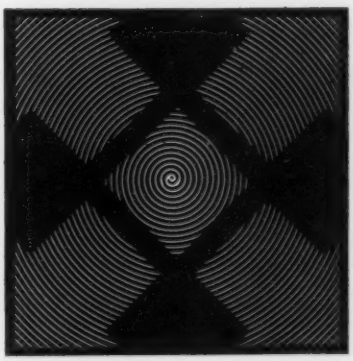


Intelligence, Operations and Intentions

by CPT Frank J. Stech, USAR

The most difficult and most crucial element in the intelligence craft lies in estimating the enemy's intentions.

Avi Shlaim[1]



Technological advances are making an enormous impact on the combat environment. Greater weapons precision and vehicle mobility are changing the nature of combat operations. New sensors and electronic data processing give commanders a wholly new and unique view of the battle area. Microelectronic communication systems provide new flexibility for command and control. Changes in technology will generate new tactics, doctrine and, ultimately, new views of combat, war and conflict.

There have been notable recent efforts to "re-think" combat doctrine to anticipate and reflect the impact of technology. One such effort is the latest Army field manual, **FM 100-5 Operations**.[2] There are problems with this initial attempt at a new view of combat, some involving intelligence and operations, outlined here. Our changing views of combat will eventually have to deal with these.

One major problem involves what we are doing and should do to improve our ability to estimate enemy intentions.

Intelligence and Operations

The relationship between combat operations (including command and control) and intelligence (including counterintelligence) is being altered by technical and geomilitary factors which are, in turn, forcing us to reconsider how these efforts should be organized and managed. For example, Johannes Steinhoff, former chairman of the NATO Military Committee, recently questioned whether the military commander, given the proliferation of targets and weapons caused by increases in fire-power, "can carry out efficiently the ... basic tasks of surveillance, target acquisition and processing of information which will enable him to deliver his weapons to the target."[3] He noted the NATO Central Control and Information System and the *Compass Cope* battlefield surveillance system provide partial answers to this question. These concerns which have long kept intelligence and operations separate, especially at tactical levels, are shifting. Intelligence is increasingly being considered an essential component of battle management at echelons down to division and it may be necessary to integrate intelligence and operations at even lower levels.

The tradition that intelligence is subordinate to operations has often been exaggerated, to the point that intelligence in combat sometimes had little impact on operations. While the principle of the subordination of intelligence remains sound, the importance of integrating intelligence with combat operations would make it a serious mistake to change our views of combat without an explicit consideration of the changing role of intelligence.

Physical and Mental Elements of Conflict

What enables the wise sovereign and the good general to strike and conquer and achieve things beyond the reach of ordinary men, is foreknowledge.

Sun Tzu

War involves physical and psychological components. On one hand, Clausewitz said "war is an act of force" while on the other, Sun Tzu observed "all warfare is based on deception." Liddell Hart wrote that one entails directly overcoming resistance with force while the other must "diminish the possibility of resistance ... by exploiting the elements of movement and surprise."[4] Because both direct and indirect methods achieve political and military objectives, combat operations and intelligence must cope with them.

The physical component of war dominates the psychological, however: artillery can kill or demoralize but killing is more decisive. Psychological elements like morale or tactics, although important, are less determinative than physical elements like numbers and fire-power.

David Kahn makes a useful distinction between "physical intelligence" and "verbal intelligence."[5] Physical intelligence is derived from natural resources, physical installations, numbers of weapons available and volume of commercial trade among other factors. Verbal intelligence is derived from words through plans, orders, morale, perceptions, intentions, estimates, promises or motives.

This distinction depends neither on the perceptual means methods by which information is acquired nor the means used to transmit the information but rather on the object of the intelligence. While the distinction, *in practice*, has little value to the actual conduct of operations or intelligence, it remains central to the *analysis* of intelligence; why some techniques are superior to others, why countries best developing these forms enjoy intelligence supremacy, why intelligence must change as combat changes.

Intelligence is not necessary to

diplomacy or war, but when available it, in military jargon, becomes a "force multiplier." Knowledge of an enemy's physical resources allows a nation to adapt its own physical resources accordingly or, because physical intelligence seldom provides the time needed for adaptation, an understanding of what adaptations are necessary. On the other hand, the psychological component of enemy plans and intentions requires time to be translated into physical reality because plans are formed earlier and changed more quickly than men and guns can be moved, or weapons built. Thus, verbal intelligence gives the opposing state the time needed to adapt resources and, by moving them to the best places, increase strength. Kahn writes:

> The time that verbal intelligence gives a commander puts his knowledge of the enemy ahead of the present situation—in effect, it foretells what the enemy will do. Physical intelligence, on the other hand, just reports on the present situation. The fundamental difference between them is that physical evidence merely confirms enemy intentions, while verbal evidence predicts them.[6]

The plans and orders of the enemy cannot kill, they must first be realized. The time required for this gives the state with verbal intelligence an opportunity to react, to shift forces and prepare counteractions, in effect multiplying its force. Because verbal intelligence thus serves the physical, decisive, component of conflict, verbal intelligence is more important than physical intelligence. There is a second reason for the greater importance of verbal intelligence to conflict and combat.

Defense and Offense

"What is the concept of defense?" asked Clausewitz. "The parrying of a blow. What is its characteristic feature? Awaiting the blow."

A state can await the blow only if it believes one is planned, and such a belief can be created only by information concerning the enemy. Defense requires a knowledge of the enemy's intentions and plans. There can be no defense without intelligence on when, where and how the blow will come. A defense attempted without this intelligence must be a universal defense. Rather than multiplying forces, force is dissipated.

Defense concedes initiative to the enemy. Offense allows enemy forces to make the basic battlefield decisions. Clausewitz stated that offense is "complete in itself." Intelligence of enemy intentions, while helpful to the offense, is not essential to victory. What is essential, Clausewitz noted, is surprise, which is achieved by denying information about one's own plans to the enemy. This further implies that verbal intelligence, a knowledge of enemy intentions, is critical to success in the defense, while operations security and counterintelligence, i.e., concealing one's plans, are essential to the success of an offensive.

It is somewhat disappointing, in light of this analysis, to find that **FM 100-5** has the relations between offense, defense, intelligence and counterintelligence somewhat reversed. Clausewitz argues that deception, security and counterintelligence are essential for the offense; **FM 100-5** stresses the gathering of intelligence as the first fundamental of offense and makes only secondary reference to deception and operational security.[7] For example, generals are advised (in bold face type) that "to concentrate [for the attack] at the right place everytime, commanders must be prime intelligence operators."[8] Such concentrations, however, are dangerous if conducted without security and deception. The increased emphasis on operations security and combat counterintelligence in the Army today (and the US intelligence community in general) is an encouraging development. But it is important to put these developments in perspective: OPSEC is vital for offense and less important for defense.

With respect to defense, which requires intelligence on the enemy's plans, **FM 100-5** suggests "commanders must be able [in the defense] to make critical decisions based on incomplete evidence" and "the defense is a race for time to detect the enemy's main thrust."[9] In other words, defending commanders are advised not to expect very much intelligence until the enemy has actually begun the attack. It will be a remarkable and fortunate commander who will survive this advice without having his defense dominated by surprise, shock and unexpected concentrations of the offense. Information on enemy plans and intentions is the essential intelligence component for defense.

Changing Doctrine

As modern developments change the nature of combat, verbal intelligence becomes even more critical to defense and OPSEC/counterintelligence even more vital to offense. Foremost among these developments are greatly increasing weapons lethality and improved intelligence sensors, platforms and collection systems. The oft-noted result is that whatever moves, masses or communicates on the modern battlefield may be seen (or detected), whatever is seen can be hit, and whatever is hit is likely to be killed.

A consequence of technological developments, the increasing speed and shock of warfare strongly suggests that even a well-equipped, highly-trained and disciplined defending force could be destroyed, if surprised, in the first engagement. Hence the concern in **FM 100-5** for winning the first battle. The defender must successfully parry the first blow because losing the first battle may mean losing the war. The defender cannot afford to be immobilized by the offensive; a static force on any future battlefield will soon be found and destroyed. The defender will have to swiftly shift the attack to regain initiative or avoid destruction. Otherwise, he will have to retrograde. Attrition defense will rapidly attrit the defender, as the Israelis learned along the Suez Canal and Golan Heights in 1973.

The likelihood that the defender will have to win the first battle to stay in the next war has led to a major reversal of military doctrine. Prior to World War II, US military officers were trained that intelligence should examine all possible enemy courses of action without selecting one as more likely than the rest, because such a choice might give a wishful slant to assessments of courses to be taken by one's own forces. Estimating the enemy's most probable course of action came into practice by World War II, but as late as 1944, American staff officers still observed the tradition of not selecting the enemy course of action shown to be the most likely by intelligence.[10]

Unofficial and official military doctrine held that military intelligence analysts should estimate only enemy capabilities, not enemy intentions. In 1951, for example **FM 30-5, Combat Intelligence,** instructed that "Commanders must be certain that they base their actions, dispositions, and plans upon estimates of enemy capabilities rather than upon estimates of enemy intentions."[11]

Current US military doctrine has completely reversed this tradition; **FM 100-5**, for the first time states that **"enemy intentions must be considered along with capabilities and probable actions,"** and emphasizes that enemy intentions **"must always"** (italics in the original) be considered along with capabilities and probable

actions. The manual instructs that "commanders must think of the enemy in terms of the enemy's tactics and doctrine, and seek to detect indicators of his intentions as well as his capabilities."[12]

Estimating Intentions

Intelligence on enemy intention is never clear.

H. A. De Weerd[13]

In the light of this doctrinal about-face, one should expect to find that **FM 100-5's** recommendations to the commander and staff on **how** to estimate intentions would stress verbal intelligence. Unfortunately these recommendations are confined entirely to physical intelligence. The only techniques mentioned in **FM 100-5** are "templating" (also known as "intelligence preparation of the battlefield") the area of operations for weather, terrain, visibility, trafficability, etc., and overlaying these templates on event templates (possible enemy courses of action). Stereotyped actions ("patterns") and dispositions ("signatures") by the enemy are combined to provide a "profile" or indicator of future activity. All these steps usefully systematize physical intelligence and, with high-powered computer systems, allow the commander to "see" the battlefield in ways never before possible, but they are not the only techniques for organizing physical intelligence, and worse, they do not provide any verbal intelligence. They do nothing to furnish the commander the intelligence on enemy plans and intentions that will be needed for the defender to win that first battle.

This analysis suggests several important issues. These are not foregone conclusions, but, rather, likely hypotheses about present and future intelligence needs which deserve far more attention and discussion than they have received to date.

Issues

• **Because short warning and no warning attacks against NATO are becoming more likely and more risky, intelligence on intentions is becoming ever more essential.** The Soviet-Warsaw (WTO) forward deployment has increased the possibility of a short or no warning attack, which in turn increases the likelihood that such an attack will succeed. The probability that physical intelligence, surveillance or warning systems will alert NATO in time to make necessary deployments and mobilizations has steadily decreased with this deployment, thus the necessity for verbal intelligence on Soviet-WTO intentions has greatly increased.

• **Improving surveillance cannot substitute for improving intelligence on intentions.** Improving the ability to detect mobilization of Soviet-WTO forces is less useful to NATO defenders than improving the ability to infer or detect Soviet-WTO plans. The current exaggerated reliance on surveillance hardware has resulted in the tendency to ignore existing and potential technologies that could (and should) be applied to estimating intentions. Imbalances favoring physical intelligence over verbal intelligence will harm the defender much more than the attacker. The WTO western deployment, its numerical advantage, its emphasis on multiple-axis attack tactics and capabilities, its attention to maneuver, and its increased interest in surprise indicate a WTO appreciation that improved surveillance cannot compensate for a lack of intelligence on intentions, especially in the twilight period preceding attack.

• **Shifting intelligence from a labor- to a capital-intensive basis may increase surveillance but reduce intention estimation capability.** Greater employment of electro-mechanical sensors and processors can reduce intelligence staffs, allow greater centralization and better dissemination of intelligence and speed the intelligence cycle. Most of these will enhance physical intelligence with minimal or negative impact on verbal intelligence. The estimation of intention depends on knowledgeable intelligence personnel drawing inferences, forming and testing hypotheses from verbal intelligence data. These processes can be aided by technology but they cannot be performed by the most sophisticated sensors or processors. Reducing intelligence manpower, or shifting it to technical roles, may actually decrease the capability of intelligence to estimate intentions, unless the process of estimating intentions is explicitly recognized and encompassed in new intelligence systems. Telling commanders they must estimate intentions does no good if designers of future intelligence systems greatly improve our intelligence capability while neglecting the man and machine power needed to produce high-quality estimates of intentions. This neglect will be instantly recognized in the event of an attack but there will be no time then to correct it.

• **The real possibilities of successful intention estimation are currently neglected and overlooked.** The doctrine that "military intelligence should estimate capabilities, not intentions" was not undone overnight by **FM 100-5**. It is now four years since **FM 100-5** reversed tradition and stressed the commanders *must* estimate intentions. This reversal has received virtually no comment, and generated little or no discussion. For example, during the "Required Intelligence Capabilities Panel" conducted at the 1978 Intelligence System Program Review held at the US Army Intelligence Center and School, the need for intention estimation seems to have been mentioned only in the context of templating.[14] Verbal intelligence seems not to have been addressed at all. Can we hope that it was in the back of everyone's mind?

There is a strong tendency in attempts to analyze intelligence needs to rely on post-mortem accounts of intelligence failures. Naturally, and unfortunately, this leads us to overlook many historical examples of the successful estimation of intentions and associate the estimation of intentions with "mind reading" and "crystal-ball gazing." The old doctrine and this focus on failure suggest a sustained, pessimistic outlook on intention estimation; only when past successful episodes are analyzed and the lessons learned from them are applied to current and future problems will the need for intention estimation in future intelligence systems be clear. Intention estimation is not mysterious, mere luck, or impossible (although past examples have remained secret or obscure); intention estimation is a skill, like other military skills, requiring understanding, practice and application. It is a weapon we can no longer ignore in designing intelligence systems and judging intelligence needs.

Successful Estimates of Enemy Intentions

For nothing is hid that shall not be made manifest, nor anything secret that shall not be known and come to light.

Luke 8:17

I will sketch several examples from recent history which will demonstrate that producing verbal intelligence and estimating enemy intentions are not impossible and that such estimates have been major elements in past combat victories. None were due to luck or chance; accurate estimates of enemy intentions were generated regularly and consistently because intelligence staffs organized themselves to produce them and commanders had the

foresight to demand and use them.

Tannenberg, 1914: The Greatest Piece of Impudence

East Prussia formed a long tongue of land pointing into Russia with the Baltic on the north and Russian Poland on the south. The Russians planned to open the war in 1914 with Rennenkampf's First Army attacking the tip of this geographic salient to draw out the German defenders while Samsonov's Second Army moved up from Russian Poland and then sliced through to the Baltic, cutting off East Prussia and the German forces there, from the rest of Germany. Liddell Hart noted, "The fault of this plan lay not in the conception but in the execution."[15]. Both the geography and the balance of forces favored the Russians:

Number of Divisions[16]

	German	Russian	
		First Army	Second Army
Infantry	9	6½	10
Cavalry	1	5	3

On the other hand, intelligence favored the German Command in East Prussia. The operations officer of the Prussian Command, Lieutenant Colonel Max Hoffmann, had been chosen as a captain to be an observer with the Japanese forces in their war with Russia. There Hoffmann learned a great deal about the characteristics and methods of the Russian Army, especially its incredible carelessness in matters of operational security. He also learned much about the Russian commanders, not the least of which was the story that Generals Rennenkampf and Samsonov had come to fisticuffs in the Mukden train station.[17] As World War I began, Hoffmann was prepared to capitalize on his knowledge.

In 1914 the Russians habitually sent uncoded radio messages, and Hoffmann, by means of spies and intercepted signals, obtained information concerning the Russian general battle orders. While other German officers, less familiar with the Russians' disregard for security than Hoffmann, were inclined to regard this information as an artful Russian deception, Hoffmann was confident that it could be attributed to the Russians' total lack of operational security. Fortunately for the Germans, Ludendorff, the Prussian Command chief of staff, agreed with Hoffmann's assessment and disposed German forces to defeat the Russian attacks piecemeal.[18]

Rather than letting the attack of Rennenkampf's First Army draw the German forces into the eastern tip of Prussia, Hoffmann and Ludendorff left only a cavalry division and a brigade to delay Rennenkampf, and concentrated the German forces in the south to meet what they knew to be the main threat, the attack of Samsonov's Second Army. The advance of the Second Army was delayed by bad roads, virtually nonexistent logistics, and friction between the Russian commanders. These difficulties, as well as the Russians' day-to-day tactics, were known to Hoffmann and Ludendorff because they were broadcast in plain language from the Russian commander-in-chief to Rennenkampf and Samsonov in the field. When the Russian line contacted the German entrenchments, the Germans fought hard through the day and then withdrew and dug in at Tannenberg, drawing Samsonov into a trap. German forces, moved from the front against Rennenkampf, wheeled into Samsonov's rear on his right wing, throwing it back in confusion and forcing it to retire. A fierce German artillery bombardment of the Russian left wing stove it in; Liddell Hart observed "the Russian troops could not stand high explosive on top of an empty stomach and they broke in flight without waiting for the German infantry." Although Samsonov knew his right flank was beaten and his left was in great danger, he ordered a second attack on the German center. This gave Ludendorff time to throw a corps across the Russian left rear, bagging two and a half Russian corps. Gerald Freund summed up the outcome:

> The Germans captured 125,000 men and 500 guns in the Tannenberg pocket, whereas their own losses for the whole campaign totaled between 10,000 and 15,000 men. There are no accurate figures on the Russians killed and wounded, but the losses were staggering. Defeated and despondent, Samsonov committed suicide.[19]

Two weeks before the Battle of Tannenberg, Hoffmann gave it an appropriate label, writing in his diary:

> If it is ever known later with how few men we have to hold the Eastern Front, it will be called the greatest piece of impudence in history.[20]

The Blitz, 1940: Battle of the Beams

Tannenberg exemplifies a straightforward application of combat intelligence and signal interception to the task of determining the enemy's battle plans. In contrast, the World War II efforts of British scientists and intelligence officers to unravel the mysteries of the German Air Force (GAF) secret radio navigation systems involved a highly sophisticated use of intelligence. A combination of signal interception, cryptology, combat and technical intelligence and scientific inference allowed the British to turn the GAF beams and communications against the Germans, by exploiting them to learn when and where the GAF bombers would strike next during the Blitz. This intelligence on GAF plans and the details of their secret navigation systems also played a major role in the British deception and countermeasures efforts which greatly impeded the GAF.

By October 1940, the height of the Blitz, British Secret Intelligence Service was able, wrote R. V. Jones, head of SIS Scientific Intelligence, "to tell the Duty Air Commodore at (Royal Air Force) Fighter Command the exact place of attack, the time of the first bomb to within ten minutes or so, the expected ground speed of the bombers, their line of approach to within 100 yards, and their height to within two or three hundred metres;" all this two or three hours in advance of the strike on about one night out of three.[21]

A variety of sources and methods contributed to this intention estimating coup: 1) the physical characteristics of the navigational beam systems and British technical exploitation of captured equipment and documents; 2) GAF operations involving these systems as observed by British radar, Fighter Command, the RAF Listening Service (or Y-Service which eavesdropped on GAF radio chatter); 3) intercepts of radio traffic to and from the navigational beam stations, deciphered by the British codebreakers from the German Enigma ciphers; 4) interrogations of and eavesdropping on German bomber crew prisoners of war; and 5)reports from agents inside the Third Reich.[22]

The Germans themselves provided the British with indications that GAF plans would change in the fall of 1940 from primarily daylight attacks on RAF installations and aircraft factories to nighttime attacks on British cities. Remarks by Goering and other GAF commanders in August that suggested a change was coming were picked up by British propaganda monitors and combined with other data (e.g., lengthening of GAF runways, stockpiling of bombs and fuel, expanded training in night flying, new navigation stations, etc.). British intelligence was able to predict the major shift in GAF plans by late summer.[23]

The story of how the British deter-

mined that the navigation beams even existed, then unraveled the technical details of their operation, and eventually went on to "bend" the beams, is a fascinating story of intelligence and scientific detective work that need not be retold here.[24] Once the British were able to "read" the beams, i.e., to determine the beam station settings and intercept the operational orders to the GAF Pathfinder air crews, the British could calculate with high certainty what the GAF would do next. One highpoint in this use of scientific intelligence on enemy intentions came in November 1940. The GAF had scheduled a heavy raid on Wolverhampton which the British learned of well beforehand.Given this warning British Anti-Aircraft Command increased defenses around the town. When GAF photo-reconnaissance revealed these greatly strengthened defenses just prior to the raid, the Germans, rightly suspecting the British were ready and waiting, canceled the attack.[25] The official history of British intelligence in World War II concludes of this period:

> During the winter of 1940-41, when the most important problem was the defense of the United Kingdom against German bombing, the most important contributions made by intelligence came from its ability to give notice of the GAF's 'target for tonight' ... and from the part it played in frustrating the GAF's navigational systems ...[26]

Midway, 1942: Incredible Victory

Early on 27 May 1942, the most powerful naval force in the Pacific, the Imperial Japanese Navy Carrier Striking Force, the *Kido Butai,* sortied from its Hashirajima anchorage for Midway Island. Its mission was Operation MI, the amphibious invasion of Midway, designed to lure the US aircraft carriers missed at Pearl Harbor into Admiral Yamamoto's trap. In one decisive surprise blow *Kido Butai* would smash the US fleet. And then no force from Alaska to Australia, from Panama to the Persian Gulf could match the Japanese Navy.

The odds in favor of the *Kido Butai* were overwhelming. It had 11 fast battleships, including *Yamato,* newest and biggest in the world. The Americans had none. It had twice as many cruisers and destroyers. It had eight carriers, including *Akagi, Kaga, Hiryu,* and *Soryu,* veterans of the Pearl Harbor attack. The Americans had three, one badly damaged at Coral Sea and hastily patched up. The Japanese carrier aircraft were the best in the Pacific, many of their pilots had five years of battle experience. The Americans were inexperienced, on one carrier not a single pilot had ever been in combat, and US planes left much to be desired. The *Kido Butai* had sailed 50,000 miles in five months, supporting one amazing military conquest after another. The Americans had suffered a string of brutal losses: Pearl Harbor, Bataan, Corregidor, New Guinea, *Lexington* sunk at Coral Sea.[27]

There was but one strike against Yamamoto and the *Kido Butai* as they steamed toward Midway. The American commander-in-chief Pacific, Admiral Nimitz, knew where they were going, when and why. A week before the *Kido Butai* left Hashirajima, Nimitz was presented with 90 percent of Yamamoto's operation order to the combined fleet, intercepted and decoded by US Navy intelligence. A week before the battle Nimitz gave his own orders, moving his forces into ambush. The American carriers and forces on Midway were few but they were ready and waiting for Yamamoto. They had the edge that lets brave, desperate men, outnumbered and outclassed, turn overwhelming odds into incredible victory. "Midway," Nimitz would later declare, "was essentially a victory of intelligence."[28]

Ever since the Japanese learned in 1931, through Yardley's **American Black Chamber**, how the United States had read their secret codes and used this intelligence to Japan's disadvantage at the 1921 Washington disarmament conference, the Japanese were extremely watchful of the security of their communications. Japanese codes and cipher machines were sophisticated, numerous, often changed and believed invulnerable to cryptanalysis. Cryptosecurity in the Japanese Navy was especially tight. Naval codes changed just days before the Pearl Harbor attack, blinding US Navy codebreakers and contributing to the Japanese surprise. By early 1942 the codebreakers in the Pacific were wrestling with JN25, the twenty-fifth Japanese Fleet code. By April, British and American cryptographers had unbuttoned enough of JN25 to warn of the Japanese Port Moresby strike, allowing Nimitz to interpose *Lexington* and *Yorktown,* checking at Coral Sea *Kido Butai*'s advance on Australia.

The break into JN25 grew wider as spring progressed and intelligence on Yamamoto's intentions in Operation MI gradually accumulated: first the size of the attack, then its overall objectives, then the dates and target code names. By 20 May, when Lieutenant Commander Joseph Rochefort's Combat Intelligence Unit at Pearl decoded Yamamoto's lengthy order to the fleet, all the signs pointed to Midway as the main target, code names AF.[29]

Nimitz and Rochefort had no doubt the AF was in the Hawaiian Island chain, they strongly suspected it was Midway, but some experts in Washington suspected the target was Oahu. Rochefort's team came up with a way to convince the doubters and confirm that Midway was AF. Knowing the Japanese monitored the Oahu-Midway radio traffic, they conducted an intelligence "experiment." Rochefort arranged to have Midway transmit a fake message complaining of the breakdown in its sea water distillation plant. The Japanese took the bait and two days later radioed Tokyo that AF was low on fresh water. Now even the skeptics knew Rochefort and Nimitz were right. Nimitz sent *Enterprise* and *Hornet* toward Midway, to wait at "Point Luck" for *Yorktown,* whose Coral Sea damage was hurriedly repaired at Pearl, to join them for the ambush.[30]

US intelligence on Yamamoto's intentions helped during the battle itself. When a Navy PBY pilot sighted the Japanese transports west of Midway and signalled "main body," Nimitz knew these were the invasion forces, not the *Kido Butai* carriers, which he knew would come from the northwest. CINCPAC signalled the task forces that the sightings were "not repeat not" the main enemy striking force. CINCPAC intelligence enabled the Midway reconnaissance pilots to know when and where to expect the various Japanese elements, and could correct them if they happened to get a little jumpy.[31]

Intelligence had set up the ambush. On the morning of 4 June, unknown to the Japanese, the US task forces were only 150 miles from *Kido Butai*. It was now up to the combat forces to pull it off. They did, magnificently. The battle raged through the day but in the afternoon, in six furious minutes, the inexperienced pilots from the US carriers hit *Akagi, Kaga* and *Soryu,* setting them ablaze. Pilots from *Hiryu* damaged *Yorktown* before Army bombers from Midway and carrier dive bombers sunk *Hiryu*. Having struck, the US task forces pulled back, avoiding a night fight with the superior Japanese battleships and cruisers. When it was over, the Japanese had lost four carriers, a heavy cruiser, 253 aircraft and 3,500 dead. The Americans lost *Yorktown,* a destroyer, 150 aircraft and 307 dead. The loss of Japanese aviators was especially critical. The *Kido Butai* badly shattered, turned back to Hashirajima.[32]

Japanese plans to invade Midway and later New Caledonia, Fiji, and Samoa were canceled. The zenith of the Imperial Japanese Navy had passed and the tide of war in the Pacific had turned. Nimitz's communiqué of 6 June read:

> Pearl Harbor has now been partially avenged. Vengeance will not be complete until Japanese sea power is reduced to impotence. We have made substantial progress in that direction. Perhaps we will be forgiven if we claim we are about midway to that objective.

Chester Nimitz was entitled to his pun. With his enemy's plans in his hands he had made all the right decisions before a shot was fired.[33]

Battle of the Atlantic, 1943: The Closest Shave of All

Just before World War II, in August 1939, the British Admiralty created the Operational Intelligence Centre (OIC), the nerve center of the maritime war against Germany. Its "brain" was the Submarine Tracking Room where the movements of all U-boats was estimated, plotted, and, by the middle of the war, predicted.

These predictions and the anticipations of the plans and reactions of the German U-boat commander, Admiral Karl Doenitz, were so accurate that, according to one historian, the Tracking Room "could claim, with justice, to know more about the U-boats' deployment than Admiral Doenitz's own staff."[34]

The climax of the Battle of the Atlantic came in March 1943, when the British Naval Staff observed that "the Germans never came as near to disrupting communications between the New World and the Old." In that month the Allies lost 97 ships; the Germans lost 16 U-boats, but were building an average of almost 24 per month. Historian Cyril Fall labeled the Battle of the Atlantic "the closest shave of World War II."[35]

Nonetheless, from May 1942 to May 1943, the height of the Battle, the Tracking Room (and its American counterpart) accomplished the following:[36]

	Number	Percent
Convoys routed clear of U-boats	105	57
Convoys sighted but not damaged	23	13
Convoys suffering minor losses (4 or fewer ships)	40	22
Convoys suffering major losses (5+ ships)	16	9
	184	100

In contrast, the German U-boat losses, averaging 16 per month in February and March 1943, increased to 28 per month in April and May. On 24 May Doenitz withdrew the wolfpacks from the North Atlantic. By June, July, and August 1943 more U-boats (74) were sunk than Allied merchant vessels (58) and no ships were routed against the advice of the Tracking Room without the express permission of the Assistant Chief, Naval Staff.[37]

The Tracking Room was an excellent example of all-source operational intelligence: the blending of all information on the enemy with details of one's own operations and plans. To bring together intelligence and operational information, the Tracking Room was located directly opposite the Admiralty Operations and Trade Main Plot, on which all Allied naval and commerce movements were followed. Officers responsible for Allied convoys and escorts and the operations of Allied fleets made nightly visits to these rooms. Each morning the head of the Tracking Room, Commander (later Captain) Rodger Winn, conferred by scrambler with Western Approaches and RAF Coastal Command. Winn then briefed the heads of Trade, Operations, Anti-submarine Warfare, and the Naval Staff. In addition, the Tracking Room produced forecasts of U-boat operations 24 and 48 hours into the future, plus a fortnightly forecast, and a weekly summary. Finally, a variety of special and regular appreciations were produced, e.g., an estimate of how the U-boats would be used against Allied invasion forces, and complete wrap-ups on the U-boat effort against each Allied convoy.[38]

The objective of the Tracking Room was to maintain as complete a record of U-boat plans and dispositions as that kept in Doenitz's headquarters. The first head of the Tracking Room, Commander Thring, did not believe that intelligence should attempt to estimate intentions, adhering to the traditional military view. Beesly, an OIC alumnus, wrote:

> He refused to accept that there was any possibility of predicting what the U-boat might do next. To reconstruct a U-boat's cruise by working backwards from one incident to the previous one, yes that was possible, but to attempt to go forward and try to guess its future movements was not only impossible but either useless or ... positively dangerous.[39]

When Winn replaced Thring, this traditional view was discarded and the Tracking Room evolved methods to predict the U-boats' moves and to anticipate Doenitz's plans.

Early in the war British cryptographers were unable to "read" the Enigma codes used by the U-boats. However, Winn used other sources, and followed the U-boats' moves until "certain patterns of behavior [were] established. Certain types of U-boat signals were ... associated with certain situations." A major "theory" of the head of OIC, Captain Norman Denning, was that "valuable intelligence could only be obtained by first establishing a 'norm' and then looking for any deviation from it." As direction finding, reconnaissance and signals intelligence improved, this experience in U-boat pattern analysis was applied to these richer sources. Beesly described this norm creation process: the patient collection of "hundreds of scraps of information," the analysis, indexing and filing of these scraps, and "the ability of a particular individual expert to assemble the relevant facts, to judge, possibly, what was abnormal and to fill in the gaps which even current Special Intelligence [i.e., Ultra decryption] almost always left."[40]

Winn began to deduce Admiral Doenitz's long-range intentions during the height of the battle, January to May 1943, when he had access to TRITON, the U-boats' Enigma-coded radio traffic with Doenitz. TRITON intelligence let Winn forecast Doenitz's initiatives and reactions to Allied moves. Beesly described Winn's February 1943 estimate of U-boat strategy for May-August 1943 as "a truly remarkable forecast, showing not only an understanding of how Doenitz was thinking at that very moment, but how he would react when the adverse conditions, which Winn clearly anticipated, actually arose." By the climax of the Battle of the Atlantic, the Allies' improving anti-U-boat capabilities and tactics forced Doenitz to explain and justify his tactics and failures to the U-boat crews and to Hitler. Winn's access to these explanations provided insights into how Doenitz responded to the changing forces of battle. Although Doenitz often suspected the German ciphers had been broken by the Allies, he accepted reassurances of the codes' security. Beesly notes that as late as 1973 (before the publication of Winterbotham's **The Ultra Secret** and the subsequent outpouring of previously unpublicized cryptologic triumphs) Doenitz "was apparently still loath to accept that most of his ciphers had been consistently and thoroughly penetrated." Doenitz's unguarded explanations to his crews had great value to Winn in his efforts to penetrate the mental processes and reactions of his opponent.[41]

Conclusion

These examples demonstrate the value of intention estimation in combat. They reflect conscientious attempts to develop and perfect intelligence systems which could consistently and accurately estimate enemy intentions. Comparable examples of successful intention estimation can be found in history at the strategic level.[42] Those of us who have not yet heeded the dictum of the new **FM 100-5,** that commanders must consider enemy intentions and those who are charged with translating the new doctrine into technology and tactics should reflect on what these historical intention estimation successes can teach.

There is a strong temptation to suggest that, while intelligence might have been able to estimate intentions in the past, yesterday's opponents were no equal of today's potential enemies. Before we adopt this argument we should remember that these intention estimators succeeded 1) despite cryptographic systems (e.g., Enigma, the Japanese naval codes) which were then thought to be unbreakable; 2) when signals intelligence was unavailable; 3) despite extraordinary attempts by the enemy to maintain operational security (e.g., the Japanese strike against Midway); and 4) despite the opposition of highly trained and talented enemy security and intelligence forces, to say nothing of the background of two of the most successful military campaigns in history, the early German and Japanese conquests. Of course, when these factors were missing (e.g., Tannenberg) the work of the intention estimators was that much easier. But even in the face of hurdles such as these, **intention estimation was an intelligence job that was done and done well.** Its fundamental techniques were developed in the crucible of the most complex and threatening combat of this century and it dealt successfully with challenges far more severe than any since faced by armed forces. That experience provides lessons we have still to relearn and a goal we have yet seriously to pursue again—how to make and use estimates of intentions.

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    British Naval Intelligence in World War I was nearly as successful in predicting U-boat intentions in that war as it was to be twenty-five years later. A description of the British World War I intention estimation efforts can be found in R. M. Grant, **U-boat Intelligence 1914–1918.** Hamden, Conn.: Archon Books, 1969.
35. Cyril Falls, "Introduction" in H. A. Jacobsen & J. Rohwer **Decisive Battles of World War II—The German View.** New York: Putnam, 1965.
    Lewin, op. cit., pp. 216–8.
    P. Beesly, **Very Special Intelligence: The Story of the Admiralty's Operational Intelligence Centre 1939–1945.** London: Hamish Hamilton, 1977, p. 180.
36. Beesly, op. cit., p. 185.
37. Lewin, op. cit., pp. 218–30.
    Beesly, op. cit., p. 166.
38. Beesly, op. cit., pp. 165–71, 202.
39. Ibid, pp. 55–6.
40. Ibid, pp. 41, 57, 64, 253.
41. Ibid, pp. 67, 175.
42. See, e.g., Hinsley, op. cit., and A. George, **Propaganda Analysis: A Study of Inferences Made From Nazi Propaganda in World War II.** Evanston, Illinois: Row, Peterson, 1959.

Reorganization of Officer Personnel Management Directorate

Phase two of the reorganization of the US Army Military Personnel Center Officer Personnel Management Directorate (OPMD) is scheduled for implementation on April 14, 1980. Part of a four-phase plan whose primary objective is providing each officer with long term continuity in career planning and personnel management, the new organization of OPMD is shown in Figure 1. The previous OPMD organizational structure is shown in Figure 2. The reorganization does not include any changes to the structure of the Colonels and Warrant Officers Divisions.

During phase two, existing company grade divisions will be reorganized into three career management divisions—Combat Arms Division; Combat Support Arms Division; and Combat Service Support Division. Under the new structure, an officer's career will be managed by a single career division from entry on active duty until selection for promotion to colonel. For example, if an officer is assigned to Specialty Code 13, the Field Artillery Management Section will manage the individual's career in both specialty areas.

Each of the new career management divisions will be organized with a Personnel Support Branch responsible for maintaining the Career Management Individual files and processing requests for orders; a Personnel Actions Branch, responsible for changes in officer career status and the correction of officer records; a Professional Development Branch, responsible for formal officer training/education programs and monitoring officer assignments; and an Assignments Branch, responsible for assigning officers worldwide. The Assignments Branch will be further organized into management sections. For example, the current Infantry Branch will become the Infantry Management Section. Figure 3 provides a complete listing of new management section titles.

The objective of phase two is to establish solid, smoothly functioning divisions prior to integrating the existing Majors and Lieutenant Colonels Divi-

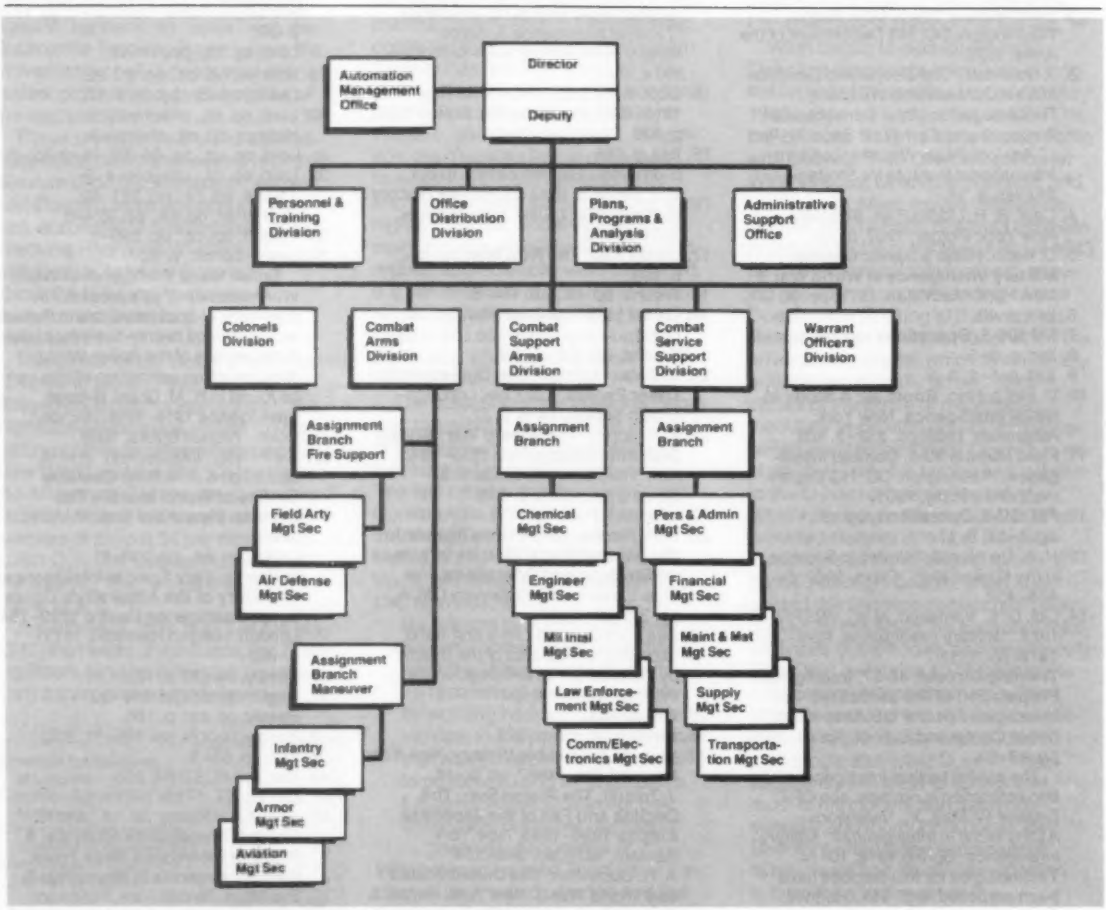

Figure 1. New Organization Officer Personnel Management Directorate

sions into the new structure. While very few officers will be affected during this phase, a review will be conducted to ensure that all company grade officers are managed by the appropriate division and management section within that division. Generally, officers can expect to be managed by the division and management section corresponding to their basic branch. However, a few officers hold specialties related to no specific branch. The records of these officers will be reviewed to determine which division and management section will be best able to manage the officer's career. Each of these officers will receive an official letter from OPMD explaining the assignment to a new management section. This management action will not affect the officer's basic branch designation.

Another objective during phase two will be the initiation of a transition to a single manager for the nonaccession specialty positions. Under the current system the assignments to nonaccession specialty positions are made independently by six different assignment divisions. When the new organization is fully implemented, one management section will coordinate all assignments of officers to positions coded with one of the nonaccession specialties. Figure 3 shows how the 27 accession and 13 nonaccession specialties have been assigned to the new management sections. Sections responsible for nonaccession specialties will have at least one officer assigned holding the appropriate nonaccession specialty. A major change resulting from the implementation of phase two is that every assignment in a given specialty will be coordinated with the management section that has overall management responsibility for that specialty as shown in Figure 3.

During phase three of the plan, the existing Majors Division will be incorporated into the new career management divisions. The existing Lieutenant Colonels Division will be incorporated into the new personnel management structure during phase four. The dates for these phases will be established and announced following successful implementation of each preceding phase.

The decision to reorganize OPMD was made in August 1979 as a result of a routine organizational management study. Phase 1 of the reorganization was initiated in January 1980 and consisted of the reorganization of the OPMD three functional divisions. Under the new structure functional operations are being performed by a Personnel and Training Division, an Officer Distribution Division, a Plans, Programs and Analysis Division and an Administrative Support Office.

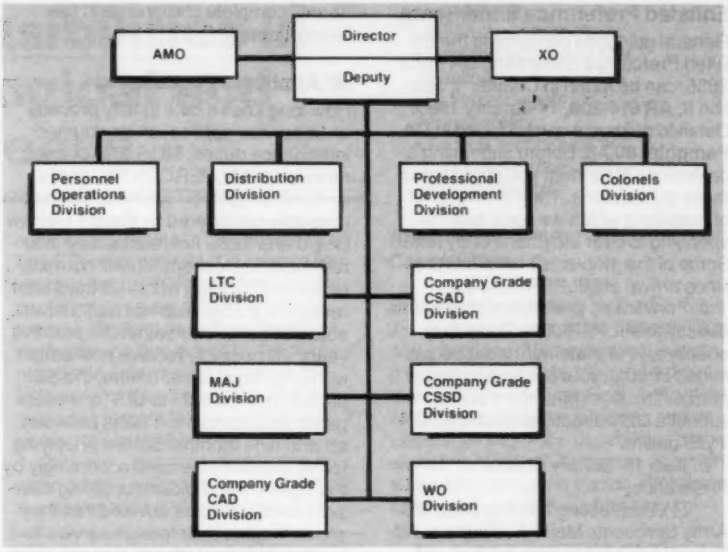

Figure 2. Current Organization

Specialty Assignment Controller Responsibility

Combat Arms Division

Infantry Mgt Sec:
11—Infantry
*54—Opns Force Dev

Armor Mgt Sec:
12—Armor
*28—Training Developments

Aviation Mgt Sec:
15—Aviation

Field Artillery Mgt Sec:
13—Field Artillery
*48—Foreign Area Officer

Air Defense Mgt Sec:
14—Air Defense
*46—Public Affairs

Combat Support Arms Division

Chemical Mgt Sec:
74—Chemical
*52—Atomic Energy

Engineer Mgt Sec:
21—Engineer
*49—ORSA

Mil Intel Mgt Sec:
35—Tac/Strat Intel
36—Counter Intel/HUMIT
37—Elec Warfare

Law Enforcement Mgt Sec:
31—Law Enforcement

Comm/Electronics Mgt Sec:
25—CBT Comm-Elec
27—Comm/Elec Engr
*53—ADP
72—Comm/Elec Mat Mgt

Combat Service Support Division

Pers & Admin Mgt Sec:
*41—Personnel Management
42—Personnel Administration
43—Club Management

Financial Mgt Sec:
44—Finance
*45—Comptroller

Maint & Materiel Mgt Sec:
*51—Research & Development
73—Missile Mat Mgt
75—Munitions Mat Mgt
76—Arm Mat Mgt
77—TK/Grd Mob Mat Mgt
*91—Maintenance Mgt
*97—Procurement

Supply Mgt Sec:
81—Petro Mgt
82—Food Mgt
92—Supply Mgt

Transportation Mgt Sec:
71—Aviation Mat Mgt
87—Marine/term Opns
88—Highway/Rail Opns
*95—Transportation Mgt

*Denotes nonaccession specialties.

Figure 3. Specialty Assignment Controller Responsibility

The staff of OPMD is convinced that the reorganization being implemented will significantly enhance its ability to serve the officer corps by providing the individual officer with long term continuity in career planning and personnel management.

Enlisted Preference Statements

General guidance concerning the Enlisted Preference Statement, DA Form 2635, can be found in Chapter 1, Section II, **AR 614-200,** 1 February 1980. Detailed guidance can be found in **DA Pamphlet 600-8.** Before submitting a preference statement you should read these publications. They answer a lot of questions which we have been responding to over the phone or by letter. Some of the problems I have found since arrival at MILPERCEN are:

a. Forwarding preference statements directly to MILPERCEN. To be truly effective, your statement must be submitted through your servicing military personnel office (MILPO). You may submit a copy directly to MILPERCEN if you desire.

b. Item 15, Military School Preference:

(1) Requesting training at the US Army Sergeants Major Academy or Advanced NCO Education System. We cannot nominate you for this training as selection is made by DA Selection Board only. This information belongs on your Senior Enlisted Evaluation Report (SEER).

(2) Requesting DAME or photo training when these courses no longer exist.

c. Item 16: Requesting intertheater transfers within the same command. Intertheater transfers are from one overseas command to another. Intratheater transfers are within the same command. Intratheater transfers are requested via DA Form 4187, through channels, to MILPERCEN only. (See paragraphs 5-3 and 5-4, AR 614-30 for more information). Keep us informed of changes in preferences. We have some really old preference statements on file. We need new preference statements within 30 days after being awarded PMOS 97B, C, 96B, C, D, H, and 17K, M. Soldiers in these MOS must also submit a new preference statement NLT seven months prior to anticipated departure from an overseas command (DEROS). I strongly encourage submission of a new preference statement at least one year prior to your expected date for reassignment overseas.

Defense Investigative Service Assignments

Defense Investigative Service is scheduled for complete civilianization by FY 1984. Therefore, assignments to DIS offices are becoming rare. Please note that all soldiers, MOS 97B, assigned overseas are considered for assignment to fill DIS vacancies first since DIS must be kept at 100 percent fill until complete civilianization has been effected.

MI Applicant Processing

How long does it take to fully process an in-service application for counterintelligence duties, MOS 97B, once received at MILPERCEN? Normally, six to nine months. However, those not favorably considered by the DA Review Board and those not released by their respective career branch will normally receive notification within 45 days after receipt. A soldier who has had a favorable SBI conducted within the past five years will normally receive notification within 60 days. On all others, the SBI packet must be sent to DIS for investigation and completion takes between six and nine months. Soldiers applying for MI should be advised accordingly by the interviewer. Soldiers applying overseas should also be advised that they should extend their foreign service tour to allow sufficient time to process their applications. We will advise a soldier within 60 days of tentative approval pending completion of SBI or disapproval. Based on receipt of that information, soldier should ensure he has sufficient time left in the overseas command since once he departs without receiving final approval, he will have to spend at least 12 months at his new duty station prior to attendance.

Request for 97C Training

In accordance with paragraph 7-4, **AR 614-200,** 1 February 1980, applications for MOS 97C training must be submitted on DA Form 4187, Personnel Action Request. We are receiving requests via the Enlisted Preference Statement which we have found difficult to administratively process. We have, in the past, submitted nominations for 97C training to Fort Meade based on each soldier's stated desires on the Enlisted Preference Statement. However, much of the information required for nomination is outdated in the soldiers Career Management Information File (CMIF) or not available. Each request must include name, SSN, rank, DPOB, DLAB score, current assignment, security clearance data, and total years of military service. A copy of DA Form 2 and 2-1 must be attached to each request. Of course, each soldier must meet the prerequisites stated in Table 7-1, **AR 614-200.**

James M. Young
MSG, USA
Senior Career Advisor, CMF 96

Reassignments Overseas

When can I expect to be reassigned overseas? Probably the most frequently asked question received at MI Branch from soldiers assigned to units within CONUS. Turnaround times in CONUS fluctuate continously based on retirements, separations, reclassifications, volunteers for overseas assignments, operational deletions/deferments, warrant officer appointments, compassionate assignments, etc. We base your eligibility for involuntary reassignment overseas on the date last returned from overseas by grade, MOS and ASI/SQI.

We maintain a computerized roster of all soldiers in CMF 96 beginning the roster with the soldier who has the latest DROS (date returned from overseas), by grade and MOS. When requisitions are received from overseas, we simply take the next soldier most eligible based on grade, MOS and ASI/SQI. Accordingly, if you are an E7, MOS 97B, and receive involuntary assignment instructions for overseas, realize that you were the most eligible and qualified in comparison to your contemporaries. Unfortunately, turnaround times cannot be publicized due to continuous fluctuations. Our advice? Watch your contemporaries who have already received involuntary assignments overseas. That will give you a fairly good idea when you will be involuntarily selected.

Where will I be reassigned? This question is difficult to answer. Many assignment parameters must be considered in each case. Paragraphs 1–4, **AR 614-200,** 1 February 1980, and **AR 614-30,** 15 June 1978, list these general assignment policies. Generally, if your last overseas tour was long, expect involuntary assignment to a short tour area and vice-versa.

Anytime after completion of at least 12 months at a CONUS unit, you may volunteer for any overseas area. Submit DA Form 4187, Personnel Action Request, through channels, to Commander, MILPERCEN, ATTN: DAPC-EPL-M (MSG Young), 2461 Eisenhower Avenue, Alexandria, VA 22331, and you will be considered (not promised) for that area. If you are stabilized, forget about reassignment until your period of stabilization has been completed. The area and unit of assignment are not selected by use of a dart board. Assignments are made based on a valid requirement (requisition), needs of the service, and the needs of the individual's career development.

G2/S2 Responsibilities in Nuclear, Biological and Chemical Defense

by CPT Mark A. Youngren

Introduction

The Soviet Army is recognized as the best-trained and equipped in the world in the area of nuclear, biological and chemical (NBC) warfare. Although the initial decision to employ NBC weapons would be made by the ***Politburo***, fire plans of Soviet division and higher echelons include contingency plans for nuclear strikes. Doctrine allowing commanders (probably as low as division) to decide when, where and how to use chemical weapons has been developed. Soviet technology will also provide for the production and delivery of biological weapons.

There are two critical aspects of NBC warfare which must be considered: 1) the direct effects of the weapons themselves; and 2) changes made to the battlefield environment by these weapons. It is important to understand that we do not fight an NBC battle but, rather, an altered conventional battle in an NBC environment. As a result, our tactics must reflect the potential for environmental changes brought about by the use of NBC weapons. We must examine our vulnerability to the direct and indirect effects of the weapons and the effect of the residual contamination of terrain, equipment, supplies and personnel on our ability to fight. For this, the commander must turn to the G2/S2 for:

- An NBC intelligence gathering plan.
- Analysis of enemy NBC capabilities and intentions.
- Analysis of the effects of weather and terrain on friendly and enemy courses of action.
- Reports concerning NBC attacks.
- Coordination of the prediction, detection, sampling and survey of residual contamination resulting from enemy use of NBC weapons.
- Target information for friendly chemical and/or nuclear fires.

Intelligence Gathering Plan

The first duty of the G2/S2 is to develop an NBC intelligence gathering plan. This includes establishing a list of essential elements of information (EEI). The EEI must provide that information which is critical in determining the impact of enemy use of NBC weapons on the battlefield as well as that information which is required by the commander in determining his response to the use of these weapons and in acquiring targets for our nuclear and/or chemical capability.

Obtaining technical intelligence on enemy NBC weapons must be part of the intelligence gathering plan. The

most critical function of this analysis is the identification of specific agents and delivery systems in order to rapidly develop countermeasures. One problem is the probable contamination of captured materiel. The G2/S2 must be prepared to handle contaminated materiel and determine responsibility for decontamination.

Before the use of NBC weapons, the intelligence gathering efforts should determine the enemy:

- Level of training.
- NBC delivery systems and units.
- Capability to defend against nuclear and chemical operations.
- Capability of offensive and defensive equipment as opposed to US capabilities and vulnerabilities.
- Probability, magnitude and location of NBC operations.

Once NBC operations have commenced, the collection effort will shift to identify enemy:

- Agents employed, including modifications of existing agents and/or new agents.
- New or modified NBC equipment.
- Defensive capabilities.
- Size and location of NBC stockpiles.
- Potential targets for engagement.
- Tactics, techniques and procedures used on the NBC battlefield.

Analysis of Enemy NBC Capabilities

A second major task for the G2/S2 is the analysis of enemy NBC capabilities and intentions. This includes the identification of threat doctrine regarding the use of NBC weapons, the identification of weapons systems locations and an understanding of the capabilities of the weapons systems. There are occasions when NBC weapons can be effectively employed and others when they cannot.

Another major consideration must be the effect of residual contamination. Unlike most conventional weapons, NBC weapons can render vast areas of terrain hazardous, destroy or reduce the military use of supplies, equipment and facilities and cause direct and delayed casualties.

The very threat of enemy persistent chemical use will degrade friendly forces initiating a full mission-oriented protective posture (MOPP) by 10-30 percent.[1] The importance of accurate, timely information on enemy intentions in determining the level of an MOPP cannot be overemphasized. The enemy can further reduce friendly force combat effectiveness through the actual use of persistent chemical agents.

Weather and Terrain

In the analysis of threat NBC capabilities, the NBC officer must also consider characteristics of weather and terrain for their effects on friendly and enemy courses of action. Because the effectiveness of chemical and biological weapons is highly dependent upon weather conditions, the intelligence officer might be able to determine when, where and how the enemy would employ NBC agents by identifying areas or weather conditions favoring or retarding the effects of NBC weapons. This would, in turn, indicate friendly force vulnerabilities and help the commander to determine appropriate protection. Weather and terrain analysis will influence:

- The type of agent and ammunition used.
- The MOPP adopted by friendly forces.
- The duration of hazard.

- The direction and extent of downwind vapor hazard and fallout.

The G2/S2 must coordinate with the Air Weather Officer to complete such an analysis.

NBC Reports

The NBC Element (NBCE) analyzes and prepares reports of enemy NBC use (Table 1). The intelligence officer must coordinate with the NBCE in the preparation and dissemination of these reports in order to adequately predict the effects of NBC weapons upon enemy and friendly courses of action.

Table 1. NBC Reports (NATO STANAG 2103)

NBC-1: Observer's Report
NBC-2: Evaluated Data
NBC-3: Immediate Warning of Expected Contamination
NBC-4: Radiation Dose-Rate Measurements
NBC-5: Areas of Contamination

The use of weapons producing delayed or residual effects requires other than conventional analysis (Table 2). How will delayed, possibly widespread, casualties affect the ability of units to conduct combat operations? How will contamination affect our use of terrain, equipment and facilities? What limitations have been place upon maneuver forces and logistical support by the implementation of a full MOPP and the need to decontaminate prior to agent penetration of protective material? What areas of terrain must be bypassed because of unacceptably high radiation levels? How will the enemy exploit our limitations? How will the enemy be restricted by residual contamination effects? To answer these and other questions, the G2/S2 must have a thorough understanding of the impact of residual NBC effects on US/allied forces and enemy forces.

Prediction, Detection, Sampling and Survey

In order to predict the effects of enemy NBC use (or friendly nuclear and chemical fires) on the battlefield, it may be necessary to predict where residual hazards may occur and to survey areas for contamination. Therefore, a fifth task of the G2 or S2 is coordinating the prediction of fallout from enemy nuclear bursts and the detection, sampling and survey of residual contamination from nuclear weapons, or from persistent chemical and biological agents. It is not the responsibility of the G2/S2 to actually prepare these reports or predictions or to send out the survey parties: the NBC element is normally given these responsibilities. It is the G2/S2's responsibility, however, to integrate information on contamination into all analyses of the battlefield. Because it may be necessary to request additional information on residual contamination from the NBC element, the G2/S2 must fully understand the effects of contamination and the means whereby such information can be gathered (surveying, sampling, etc.).

Target Information

Finally, it is the responsibility of the G2/S2 to develop target information for the nuclear/chemical Target Analyst. This information must be complete and provided in a format required by the Target Analyst. The G2/S2 must be intimately involved in refining this target information, as necessary, as new intel-

Table 2. Initial & Residual Effects of NBC Weapons

Weapon:	Initial (Direct) Effects	Residual Effects
Nuclear	Blast (winds, pressure) Thermal radiation (heat, light) Initial nuclear radiation (gamma rays, neutrons) Electromagnetic Pulse	Neutron-induced pattern (around Ground Zero) Fallout (surface and shallow subsurface bursts
Chemical		
Non-Persistant (gas or aerosol) Toxic Agents: Blood, Choking, G-Series Nerve	Unprotected personnel casualties due to inhalation	Downwind vapor hazard (extent and duration dependent upon weather and terrain)
Persistant (liquid) Toxic Agents: Thickened G-Series Nerve, V-Series Nerve, Blister	Unprotected personnel casualties due to contact with exposed body surface (inhalation hazard from some agents with vapor)	Contamination Casualties due to agent penetration of chemical protective material (if decontamination is not performed soon after contact with agent) Downwind vapor hazard (if agent produces vapor—dependent upon weather and terrain)
Biological	Infection of personnel due to contact with agent—inhalation, ingestion, vector. Initial effects will not be apparent (due to incubation period)	Contamination (dependent upon agent, weather and terrain) Infected vectors may transmit disease to successive generations. After incubation period, casualties due to contact with agent or (with communicable diseases) other infected individuals Downwind hazard (aerosol dissemination)

ligence arrives, to insure the effective employment of a friendly nuclear or chemical weapon.

Conclusion

It should be clear the G2/S2 has very significant NBC defense duties as the intelligence officer in a unit. He must be familiar with the effects of NBC weapons, their capabilities and limitations in order to provide the battlefield commander with the information he needs to operate in an NBC environment.

The NBC battlefield will severely test the ability of US forces to conduct their mission. Intelligence is critical to preparing for the direct effects of NBC weapons and coping with their residual effects. If the intelligence officer at battalion, brigade and division can integrate the potential and actual use of nuclear, biological and/or chemical weapons into the intelligence provided to the commander, our forces will be able to fight, and win, on the NBC battlefield.

Footnotes

1. USAOCCS Chemical Assessment Study, May 1979.

Suggested Reading

FM 3-1, CBR Support, Feb 70.
FM 3-12, Operational Aspects of Radiological Defense, Aug 68.
FM 3-87, NBC Reconnaissance and Decontamination Operations, Feb 80.
FM 21-40, NBC Defense, Oct 77.
FM 101-31-1, Nuclear Weapons Employment Doctrine and Procedures, Mar 77.
IAG-13-U-78, Soviet Army Operations, Apr 78.

Indicators of Possible Soviet Chemical and Biological Agents

Extensive reports given by refugees from conflicts in Laos and Afghanistan allege that chemical agents have been extensively used by Soviet and Soviet-supported forces in these areas. Dr. Lewis from Brooke Army Medical Center headed a team of doctors interviewing Laotian refugees. These refugees accurately described the symptoms of riot control agents and non-lethal incapacitants, and also described other deadly chemical effects, such as convulsions, internal bleeding and extensive blistering. On the basis of these interviews, the US State Department has concluded that "approximately 700–1,000 persons may have died as a result of the use of chemical agents" in Laos.

Refugees fleeing from Afghanistan have described deaths caused by internal bleeding, blistering over the whole body and violent convulsions. These symptons are apparently identical to those reported in Laos.

The House intelligence oversight Subcommittee has accused the Soviet Union of concealing facts about an outbreak of anthrax in the city of Sverdlovsk in April 1979. According to the Subcommittee report, an explosion at Military Compound 19 at Sverdlovsk blew anthrax spores into the air, causing as many as 1,000 deaths.

It must be noted that the above information was gathered from unclassified media reports and to this date no official intelligence estimate has been released concluding that the Soviet Union has definitely violated the provisions of international treaties prohibiting the use of chemical agents and the production and stockpiling of biological agents.

(continued from page 23)

dinately alarmed, however. Soviet and US helicopter pilots and their equipment are roughly equivalent; Soviet and US organizations are equally viable. Soviet weaknesses which have been discussed in this article suggest, however, that the Soviets can be defeated in the inevitable helicopter-to-helicopter battle.

Footnotes

1. **Colonel M. Belov,** *"How to Fight Helicopters,"* **Soviet Military Review,** September, 1979, pp. 18–19.
2. *"The Military Balance 1979/80,"* **Air Force Magazine,** December, 1979, pp. 66–70.
3. Asher Lee, ed., **The Soviet Air & Rocket Forces** (New York: Frederick A. Praeger, 1959), p. 189.
4. Herbert Goldhamer, **The Soviet Soldier: Soviet Military Management at the Troop Level** (New York: Crane, Russak & Company, Inc., 1975), p. 52.
5. Colonel A. Khorobrykh, *"At the Reader's Request: At the Threshold of the Sky-Report from a Psychophysiological Laboratory,"* **Aviatsiya I Kosmonavtika,** December 1978, pp. 30–31.
6. Lee, p. 190.
7. Colonel S. Gorelov, *"Reliable Wings for the Eaglets!"* **Aviatsiya I Kosmonavtika,** September, 1979, pp. 1–3.
8. Lee, p. 190.
9. *"The Military Balance 1979/80,"* p. 70.
10. Combined Arms Combat Developments Activity, **HB 550-2 Organization and Equipment of the Soviet Army** (Fort Leavenworth, KS: Threats Division, Concepts Doctrine and Literature Directorate, 1978), p.1.3.
11. CACDA, pp. 5.46–47.
12. Ray Bonds, ed., **The Soviet War Machine: An Encyclopedia of Russian Military Equipment and Strategy** (New York: Chartwell Books, Inc., 1976), p. 82.
13. *"The Military Balance 1979/80,"* p. 135.
14. CACDA, p. 5.46
15. Brigadier General Edward M. Browne, *"On the Attack Heliopter,"* **United States Army Aviation Digest,** January, 1979, p. 2.
16. US Department of the Army, **FM 30-40 Handbook on Soviet Ground Forces** (Washington, DC: US Government Printing Office, 1975), pp. 6.95–97.
17. Captain Carl Daschke, *"Air to Air ... Fact or Fiction,"* **United States Army Aviation Digest,** October, 1979, pp. 14–15.
18. Major E. Belyayev, *"Helicopter Gunship Squadron Training,"* **Kransaya Zvezda,** June, 1979, p. 1.
19. Lee, p. 293.

Themes/Writers' Guide

Proposed themes for 1981 are listed below. Remember that article topics are intended only as a point of departure and articles addressed to other aspects of any one theme or addressed to no one theme in particular will be considered for publication.

Training at Fort Devens and Fort Huachuca
January–March 1981
(Submit articles by December 1)
Training
Training Developments
Training Literature

INSPR
July–September 1981
(Submit articles by June 1)
INSPR Panels
Systems Development
National Training Center

Army 86
April–June 1981
(Submit articles by March 1)
Division, Corps, EAC 86
MI on the Integrated Battlefield
CEWI on the Integrated Battlefield
MI and the Employment of Tactical Nuclear Weapons and Chemical Munitions

Intelligence Functions Around the World
October–December 1981
(Submit articles by September 1)
INSCOM
66th and 500th MI Groups
Intelligence at Division Level
Intelligence at USAREUR
Intelligence at Training Exercises (Reforger ...)

Military Intelligence is oriented toward the active Army, Reserves, and civilian intelligence personnel throughout the Army and intelligence community. When writing your article, consider the readers. They range from privates to general officers to civilians —all with one thing in common—they work or have interest in military intelligence.

Subjects. We are interested in all subjects relating to the diverse fields of military intelligence including Army doctrine and policies relating to intelligence, tactical and strategic intelligence, organization, weapons and equipment, foreign forces, electronic warfare, intelligence collection (SIGINT, HUMINT, etc.), in fact, any subject of interest to professional intelligence personnel. Historical articles should have contemporary value. If you have an idea for an article, contact us and explain your theme, scope, and organization. It will save you time and facilitate our planning.

Style. *Military Intelligence* perfers concise and direct wording in the active voice. Every article should have a beginning that catches the reader's attention, a body containing the crux of the article and an ending which concludes or summarizes. Keep the article as simple as possible. Avoid unfamiliar terms, abbreviations and poorly constructed sentences. Do not submit a manuscript unless you are completely satisfied with it. Read it over three or four times, and let a friend read it. It is not uncommon to revise an article several times before submitting a finished manuscript. Do not waste the reader's time with meaningless or repetitive phrases and words. We edit all articles; however, a polished article is more likely to be accepted than a hurried, mistake-riddled effort. Save us time and give your article a chance; be your own editor.

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Length. We prefer articles from 1,000 to 3,500 words. We will publish shorter or longer articles depending on quality. Develop your ideas and stop.

References. Cite your references and enclose all quoted material in quotation marks. If possible, credit should be given within the article as footnotes are burdensome and use valuable space.

Copy. Send clean, double-spaced manuscripts typed on one side of the sheet. Your name and length of the manuscript should be typed on the first page. We prefer one original and one carbon copy.

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Graphics. Artwork in the form of black and white glossy photographs, maps, sketches, or line drawings can enhance the attractiveness and effectiveness of your article. If you have an idea for artwork or know where we can get it, let us know. Remember, "a picture is worth a thousand words."

Biography. Enclose a brief biographical sketch, including important positions and assignments, experience or education which establishes your knowledge of the subject, and your current position and title. Include a black and white, head and shoulders photograph of yourself to use with your biography. Military personnel should be in uniform.

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Summary. If you are interested in a subject, chances are that others will be, too. Pick such a subject. Thoroughly research it and think all your ideas through. Write with enthusiasm, but be natural. Do not adopt a style foreign to your way of thinking and speaking. Revise and rewrite, but retain wit, animation, and personal touches. Good writing is hard work, but it is noticed and the feeling of accomplishment is great.

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Korea and East Asian Stability

by SFC Daniel Arnold

Korea has since ancient times occupied a unique position in East Asia. With its central geographical position, it has served as a bridge over which civilizations and armies of destruction have moved. Between China and Japan, Korea has been a buffer of innovation and a staging area for invasion. In modern times, the expansion of Imperial Russia, and later the Soviet Union, has been felt in this strategically-located peninsula. The clash of cultural, political and military forces from these three areas has made Korea one of the most important nations in East Asian history.

Culturally, Japan, China and Korea are much the same. Ancient China, the most advanced culture of the time, heavily influenced Korea and, through Korea, Japan. Early in the Sixth Century, China began exerting its influence upon Korea, making Korea a country very similar to China. Korea in turn passed this cultural heritage to Japan across the one hundred mile Sea of Japan. This transfer of ideas created a unique tie between the three countries which may one day bring them together yet again. Despite similar cultures to China, however, Korea and Japan held fast to their national identities. Japan formally closed its doors to further outside influence from the early 1600's until Commodore Perry's reopening of Japan in 1854. Korea, on the other hand, became a vassal of China, exercising only varying degrees of independence depending upon the strength of the Chinese dynasties in power until it was freed of Chinese suzerainty after the Sino-Japanese War in 1895.

The military considerations making Korea so significant in East Asia also have a long historic background. Korea had been, to varying degrees, a tributary state of China for hundreds of years before it gained military importance to both China and Japan. In 1274 and again in 1281 the Mongols, then in control of China, used Korea as the staging area for unsuccessful invasions of Japan. Korea supplied vast quantities of provisions for these invasions (and would later be forced to do the same for Japan). About 900 ships and approximately one-fifth of the Mongol force's soldiers were provided by Korea. Little more than 300 years later, from 1592 to 1597, Korea was again the focal point of conflict between Japan and China as Japan, under Toyotomi

Hideyoshi, attempted to conquer China. This invasion succeeded only in the limited occupation of the Korean peninsula and the eventual withdrawal of Japanese forces. Shortly after this invasion, Japan was consolidated under the Tokugawa Shogunate and through official decrees all contact with the outside world was banned. These two military incidents serve to show the importance, even at an early date, of Korea's strategic military position in East Asia. As western powers began opening China and later Japan to the West, Korea emerged as a nation relying on the whims of outside nations for its independence and security.

Japan, quick to realize that only rapid industrialization would save her from the western colonialism then besetting China and Korea, began a modernization so rapid that it quickly assumed a position of power in East Asia. Japan saw Russia's expansion and desire for warm water ports would soon conflict with its own aim to achieve equality and power in Asian affairs. To this end, Korea was seen as Japan's only means of gaining the raw material necessary for continued industrialization, and as a buffer for territorial expansion. With Japan's victory in the Sino-Japanese War, Korea was given independence from China and Japan was granted economic preference by the West, as well as an acknowledgement of interest in Manchuria. Control of Manchuria was significant in that Manchuria was the ancestral seat of the then ruling Manchu (Ch'ing) Dynasty and, at various times throughout history, a part of Korea. During the Boxer Rebellion, Russia occupied all of Manchuria. Japan saw this as a threat to its intended domination of Korea while western nations, particularly England, saw it as a potential threat to their Asian empires. Rather than removing occupation forces as expected after the Boxer Rebellion, Russia moved in more troops, causing Japan to declare war in February, 1904. This declaration represented Japan's gamble to secure a foothold on the mainland for further expansion and access to mineral-rich areas of Manchuria. After Japan's victory over Russia, Korea became a Japanese protectorate and Russia acknowledged Japan's special interest in Manchuria.

Korea had once again been a hapless middleman in Asian politics. Japan forced Korea's ineffectual government to agree to an annexation treaty which made Korea part of Japan in 1910. By the end of World War I, Japan, through ruthless exploitation of Korea and Manchuria, had created an industrial base that allowed it to begin planning for greater dominance in Asia.

By 1932, with Korea as a staging area, Japan created an "independent" state of Manchukuo, formerly Manchuria and parts of Korea. With Korea and Manchuria firmly in her grasp, Japan set upon China. By steadily drawing upon Korea and Manchuria for manpower and raw materials, Japan won concessions of territory from China and its soldiers, many of whom were Korean conscripts, occupied these areas. Events moved rapidly to World War II. After the defeat of Japan, the United States occupied Korea south of the 38th parallel while the Soviet Union, attempting to regain a foothold in East Asia, occupied the northern half. With the subsequent Communist takeover in China, Korea again became a strategically vital area protecting Japanese and American interests in East Asia. A continued US presence in South Korea has been critical to Japanese national security since that time.

Korea, through its strategic location, has been critical to East Asian stability for centuries. Seldom truly independent, Korea's manpower and resources have been used by China, Japan, Russia and the United States to gain dominance in East Asia. With continuing world tensions, Korea remains vital to United States interests in maintaining a counterbalance to a Communist-dominated East Asia.

INSCOM: Meeting a Challenge

by LTC Robert W. Loomis

Every organization exists to serve a need. The US Army Intelligence and Security Command satisfies one of the Army's fundamental requirements: the need for information about hostile enemy forces.

Under the direction of INSCOM commander, MG William I. Rolya, the command performs a worldwide intelligence, security and electronic warfare mission in support of the Army at the echelon above corps. While the command concentrates on collecting, analyzing, producing and disseminating intelligence to its users, INSCOM also provides technical advice and assistance on training and employment of intelligence and electronic warfare forces assigned to various corps, divisions and brigades.

To counter hostile intelligence threats, INSCOM provides counterintelligence and operational security support. To accomplish this mission, INSCOM approves and inspects all Army cryptographic facilities worldwide, and conducts Tempest tests and inspections of all Army facilities which electrically process classified information. The command also performs technical surveillance countermeasures, surveys and polygraph activities.

In electronic warfare, INSCOM provides interface between deployed tactical field units and national intelligence systems. An important aspect of this is the provision of technical data about hostile communications and non-communication equipment, systems and procedures.

A Worldwide Command

INSCOM is a major Army command formed in October 1977, primarily from assets of two organizations of distinguished lineage. On January 1, 1977, the US Army Security Agency was designated the US Army Intelligence and Security Command, with the US Army Intelligence Agency as an assigned unit. The functional merger of USASA and USAINTA took place on October 1, 1977, thus completing the integration of Army high-level intelligence organizations into INSCOM. INSCOM headquarters is located at Arlington Hall Station, Arlington, VA, with additional staff elements and operational personnel at Fort Meade, MD. Ultimately, headquarters elements and related functions will be collocated.

INSCOM subordinate units are situated throughout the world. Field stations are located in Germany, Okinawa, Japan, Korea, San Antonio, TX and Homestead Air Force Base, FL. Their mission is to provide rapid radio relay and secure communications for US and allied forces. Additional functions include transmission security and electronics research.

INSCOM Military Intelligence Groups operate worldwide, providing operations security support designed to counter multi-discipline intelligence threats to US Army activities.

CONUS-based MI Groups, all at Fort Meade, are single-mission organizations. Each group has one of the four missions of HUMINT, SIGINT/EW, CI/SIGSEC support, or offensive counterintelligence in general support of Army requirements. The 902nd MI Group, with a battalion located in each CONUS Army area, is responsible for security support to CONUS Army forces, including dedicated support to the Pentagon and the Defense Nuclear Agency. The 902nd performs an operations security mission on an area basis, assisting commanders in reducing their vulnerabilities to hostile intelligence efforts. Technical surveillance countermeasures teams use sophisticated techniques to maintain physical security, thereby countering hostile SIGINT and HUMINT threats. Automatic data processing security teams assist in securing classified computer data bases from unauthorized access. Imagery interpreters assist in countering the hostile intelligence IMINT threat by utilizing photography in their vulnerability assessment of our forces. All of these teams combine with the normal counterintelligence functions to protect units, individuals and installations from hostile subversion, espionage and sabotage.

INSCOM's CONUS Military Intelligence Group is also located at Fort Meade. The group performs administration, training and logistical functions in support of INSCOM's national level intelligence support activities.

Another of INSCOM's major subordinate commands is the Intelligence Threat Analysis Center. Based in the Washington, DC area, ITAC produces multidiscipline intelligence, counterintelligence and threat analyses in support of national level and Army consumers.

Results of INSCOM's worldwide intelligence activities contribute to national intelligence estimates and foreign policy deliberations. Its operations in support of Army requirements assist in Army force planning and materiel and combat development. It provides CONUS maneuver element commanders with intelligence for training and contingency planning and provides overseas commanders with indications and warning assessments. Security support enhances Army security worldwide by denying and countering hostile intelligence threats. The integration and fusion of these various intelligence and security functions into a multidiscipline collection, production and countercollective effort have resulted in improved Army intelligence support.

People Who Meet the Challenge

In concept and technology, intelligence is a sophisticated discipline and will become more so as technology advances, requiring dedicated men and women with years of education and job-acquired skills.

While each of the military intelligence specialties performs a separate function, it is only by integrating all available skills that the Army can be assured effective intelligence gathering and production. The wide scope of military intelligence and the variety of missions facing the Army find intelligence personnel working in varied specialties ranging from research analysis to computer technology, electronics engineering to cryptologic operations and operational specialties to research and development.

Numerous opportunities and specialty fields exist for officer and enlisted personnel in Army intelligence and in INSCOM. Educational backgrounds include the "hard" sciences, social sciences, professional programs and humanities.

Officer Specialties

Officers should hold undergraduate degrees relating to their chosen specialties. Graduate degrees or other experience in related areas are considered helpful and likely to assist in mission accomplishment and enhance advancement.

Specialties which might involve assignments in military intelligence and their validating disciplines are explained in the following summary

Headquarters of the US Army Intelligence and Security Command is located in this building at Arlington Hall Station, Arlington, VA (US Army photo).

paragraphs:

—In Engineering, Officer Career Specialty 21, degree work concentrating in the hard sciences of engineering, applied physical sciences or a related discipline is important.

—Combat communications electronics (25) and fixed telecommunications systems (26) are also used in military intelligence. Undergraduate degree programs for these disciplines are not particularly defined, but studies should support entrance into a graduate program centering on engineering or business.

—Undergraduate degrees in engineering or physics qualify a person for the communication-electronics engineering (27) specialty.

—The tactical/strategic intelligence specialty (35) requires a degree directed more toward humanities and social sciences (geography, international relations, foreign affairs, topography, government or English), although automatic data processing (ADP), geological engineering, mathematics and physics are included.

—The counterintelligence/human intelligence (36) specialty emphasizes the humanities and social sciences such as pre-law, political science, civil government, police science and general education. With its expanding mission of operations security, this specialty has a growing requirement for people trained in communication, electronics and other hard sciences.

—The electronic warfare/cryptology (37) specialty uses a mix of hard science, humanities and social sciences —qualifying disciplines including business, mathematics, engineering, journalism and English.

—Degrees in anthropology, area studies, business, engineering, foreign affairs, government, psychology or languages could qualify the officer for the foreign area officer specialty (48).

—Another specialty extending into military intelligence is operations research and systems analysis (49). Its undergraduate qualifiers include business, industrial management, engineering, physics, mathematics and economics.

—Undergraduate degree disciplines suited for research and development specialists (51) include all engineering disciplines, physical sciences, analytical sciences and mathematics.

—Automatic data processing (53) emphasizes the hard skills of ADP, engineering and data processing, although experience as an ADP operator does not constitute qualification.

Enlisted Specialties

While INSCOM soldiers represent nearly all career fields, the command focuses its interest on Career Management Fields 96, Military Intelligence; 98, Electronic Warfare (EW) Cryptologic Operations; and 33, EW Intercept Systems Maintenance.

CMF 96 encompasses 10 Military Intelligence specialties grouped in three areas: tactical intelligence production, controlled intelligence and tactical intelligence surveillance. Soldiers selected for these specialties generally have high foreign language aptitude and will be trained further at the Defense Language Institute in Monterey, CA. CMF 96 soldiers are also trained in the use of highly-sophisticated electronic equipment. Depending on the soldier's specialty, he or she will be trained in intelligence collection procedures, interrogation techniques, imagery interpretation and intelligence analysis, to name a few.

CMF 98 contains eight MOS' in four areas: collection of electromagnetic emissions, analysis of these emissions, security of friendly communications and noncommunications, and electronic warfare operations.

Collection is performed using three primary methods. Soldiers selected for the MOS are trained in advanced iden-

Signals intelligence specialists operate sophisticated electronic systems to provide analysis of communications. (US Army photo)

tification techniques which use highly-technical electronic systems, to include automatic data processing equipment.

Communications security involves the operation of devices to monitor the radio-telephone and conventional telephone communications of friendly forces to prevent information "leaks." Noncommunications is also part of this field: with radar as an example of noncommunications electronic signals, soldiers may be trained to operate receiving and analysis equipment designed to intercept the noncommunications of opposing forces.

Electronic intelligence analysts are the specialists at the hub of the CMF 98 wheel. Using information collected from a variety of electronic media, they compile data used by strategic and tactical military planners. Analysts often require foreign language training. Since the massive quantities of collected information dictate use of automatic data processing, the analyst must often be trained in use of ADP equipment.

Soldiers selected for CMF 33 must possess an aptitude for electronics. They are trained in knowledge and use of tools commonly used by electricians and electronic equipment repairmen.

US Army Intelligence and Security Command operates seven field stations, such as the one pictured above, to provide rapid radio relay and secure communications for US and allied armed forces, also transmission security and electronics research. (US Army photo)

Commitment to the Challenge

The US Army Intelligence and Security Command is dedicated to meeting the challenges confronting intelligence and concerned about the development of the people assigned to it.

INSCOM meets the challenges with a commitment to excellence in providing quality and highly-responsive intelligence through a network of diversely-trained and highly-dedicated professionals.

Developments in MOS 96C

by SSG Robert M. Rose, Jr.

The 96C Team, EPMS Branch, USAICS, has had a very busy and productive year. The new Program of Instruction (POI) for the 96C resident course has been designed to produce graduates who are more tactically oriented.

The new POI includes formal instruction and testing in Soviet Army organization, weapons and equipment. This instruction replaces a self-paced, programmed text. A unit of instruction based on the CEWI organizational concept has also been implemented. Strategic interrogation instruction has been expanded to include report writing procedures and an interrogation practical exercise (PE). Tactical interrogation PE stories and supporting lesson plans have been rewritten to reflect a high-intensity European conflict. A new Tactical Interrogation Report (TIR), based on Order of Battle factors and a STANAG format, has also been developed. The interrogation FTX has been expanded from three to four days to provide additional field training which includes terrain association and NBC exercises.

Special thanks to several recent 96C graduates who, while on casual status, provided a great deal of assistance to EPMS in developing the PE's and Lesson Plans.

In addition, MOS working committee meetings with other 96C training developers and instructors at USAICS have resulted in revisions of graduation criteria and FM 30-15. A military-unique word list and a videotape depicting interrogation techniques have been developed and submitted DLIFLC for use in language training. The 96C Team has also collected valuable data from the field for developing 96C course content and doctrine. Suggestions should be sent to Commander, USAICS, ATTN: ATST-TD-ITE (96C), Fort Huachuca, AZ 85613 (Autovon: 879-3355).

Avenger At War, by Barrett Tillman, Charles Scribner's Sons, New York, NY, 1979, 128 pages, $17.50.

The Grumman TBF Avenger would certainly have claimed no awards as the best fighter of World War II. Initially designed for the Navy as a torpedo bomber, the Avenger was hampered in that role by highly unreliable torpedoes. As a result, the TBFs were used as dive bombers and did this job well.

There were more Avengers built than any other Navy fighter except for the Hellcat and the Corsair. Avengers were active in the Atlantic, Pacific, Arctic and Indian Oceans and the Mediterranean Sea. Their record against German U-boats in the Battle of the Atlantic was especially noteworthy.

The author of **Avenger At War,** Barrett Tillman, has established himself as an expert and skilled writer in aviation subjects. In this volume he has combined first-person accounts from Avenger veterans with a narrative and illustrations that weave a comprehensive history of the TBF, providing a thoroughly interesting look at one of the many fighter aircraft engaged in naval air war during World War II.

Captain Don Rightmyer, USAF
Office of Air Force History

The Failure of Che Guevara's Bolivian Insurrection

by CPT Robert C. Kleinpeter

In the April 1967 issue of the Cuban magazine ***Tricontinental***, Dr. Ernesto "Che" Guevara, an Argentine doctor and internationally famous revolutionary, announced to the world his strategy for the liberation of Latin America:

> Latin America, the continent ignored by recent liberation struggles, which begins to make its voices heard with ***Tricontinental*** as the vanguard of the people, will have an extra-ordinary mission: the creation of a second or third Vietnam. We must always remember that capitalism is an international system and we must fight it on a global scale. The strategic objective of the struggle is the destruction of imperialism.[1]

Thus, the purpose of Che Guevara's insurrectionary expedition to Bolivia, beginning in the fall of 1966 and ending with its destruction 11 months later, was to create enough trouble for the Bolivian government that it would be forced to ask for substantial American intervention. Guevara hoped to force the US (through its treaty obligations to defend the Western hemisphere), into what he hoped would become another Vietnam. A substantial American military presence in Bolivia would have inflamed the pro-communist left and many moderate groups throughout Latin America, causing a continent-wide reaction against "Yankee imperialism" with Guevara's 50-man guerrilla force serving as its catalyst.[2]

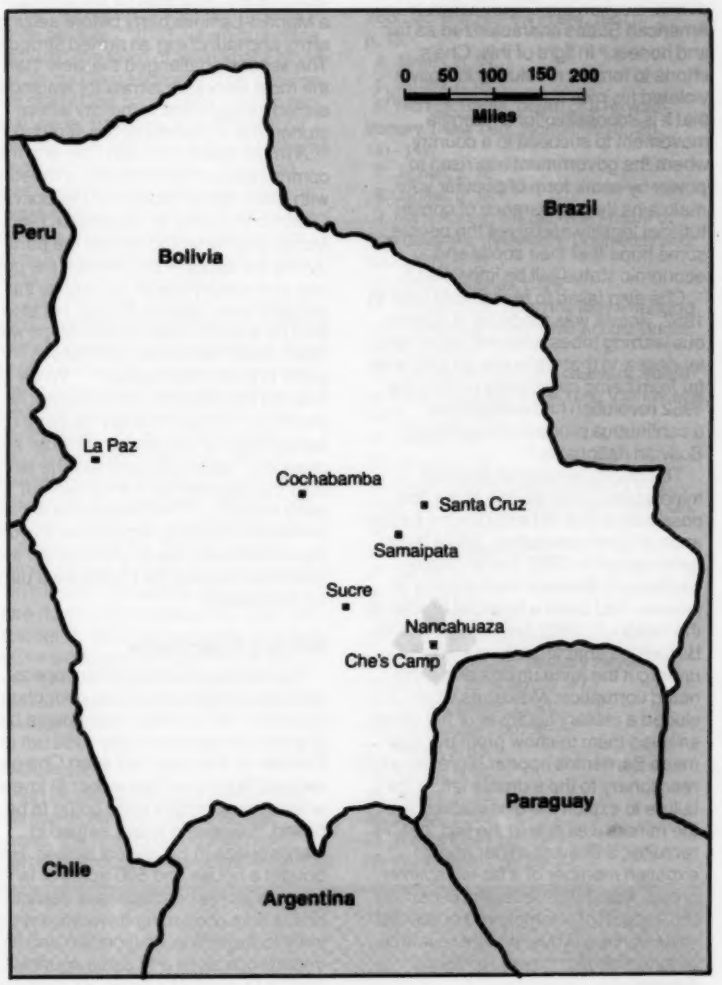
Guevara chose Bolivia because it was thought to have the greatest revolutionary potential and because of its strategic location. Guevara felt a strong guerrilla movement in a country bordering on five other Latin American nations (see map) would produce a chain reaction with its neighbors.

The failure of the insurrection can be attributed to four factors: first, a faulty assessment of Bolivian political and economic conditions and their relation to Bolivia's revolutionary potential; second, a lack of unity between Guevara and the Bolivian left; third, many flagrant violations of military principles in the planning and conduct of the campaign; and fourth, an overestimation of US response to armed leftist activity in Latin America. Furthermore, many principles of guerrilla warfare and revolution developed by Che during the Cuban Revolution were not applied to Bolivia. This inconsistency adversely affected the political and military effects of the operation.

Political–Economic Conditions

In his book **Guerrilla Warfare**, Che wrote, "It is not always necessary to wait until all the conditions for revolution exist; the insurrectional focus can create them."[3]

This theory, which governed his operations in Bolivia, proved to be a fatal flaw. While conditions for revolution in Bolivia were better than elsewhere in Latin America, they were worse than Bolivian supporters, citing mass poverty, distrust of the government, the revolutionary spirit of the people and the discontent of the mineworkers in the tin industry, led Guevara to believe. Based on their information, Guevara decided to offer a program of agrarian reform to the peasantry even though Bolivia had undergone a revolution in 1952 through which agrarian reform was instituted



by the breaking-up of landed estates. Southeast Bolivia, which Che selected as his base of operations, was precisely where agrarian revolutionaries were least needed because peasants there had far more land than they could hope to work even with the help of their children.[4]

Of all the miscalculations Guevara made, his lack of understanding of Bolivia's leaders, Generals Barrientos and Ovando, was the most costly. Viewing Bolivia as similar to pre-revolutionary Cuba, Guevara saw Barrientos and Ovando as a two-headed Batista. Actually, neither general had fought the revolutionary trend in Bolivia as Batista had in Cuba. On the contrary, both had been a part of it. The government they led was based entirely on the popular policies of the National Revolution of 1952. Furthermore, in July 1966 General Barrientos won 62 percent of the vote in a presidential election the Organization of American States characterized as fair and honest.[5] In light of this, Che's efforts to foment revolution in Bolivia violated his own fundamental precept that it is impossible for a guerrilla movement to succeed in a country where the government has risen to power by some form of popular vote, maintains the appearance of constitutional legality and gives the people some hope that their social and economic status will be improved.[6]

Che also failed to realize that prior to 1952, Bolivia was made up of numerous warring tribes, classes, races and leaders and that while the country was far from being completely united, the 1952 revolution had established a continuous process of building a Bolivian nationality.[7]

The disgruntlement of Bolivian mineworkers offered one of the few possibilities that did exist for the furtherance of Che's revolution. Since being nationalized in 1952, the tin mines, traditionally Bolivia's main source of income, had been a financial burden to the nation. In 1965, however, General Barrientos enacted reforms which undercut the mine unions and eliminated corruption. Measures which included a military takeover of the mines enabled them to show profit but also made Barrientos appear repressive and reactionary to the extreme left.[8] Che's failure to exploit the dissatisfaction of the miners was due to the fact that his recruiter, a Bolivian miner and an expelled member of a far-left splinter group, was only successful in gaining the support of unemployed or outcast mineworkers. Thus, a large resource of available manpower remained untapped.[9]

The Bolivian Left

Disagreements between Guevara and Bolivia's communists cost him much-needed manpower, money, equipment and urban influence. The arguments arose from two of the fundamentals Guevara established in his book on guerrilla warfare and on the question of political and military leadership.

Che had written that conditions for armed revolution need not be present but can be created and that the battlefield for revolution in Latin America is the rural countryside. Both precepts contradicted the established guidelines of Latin American communist parties. The first challenged the belief that a revolutionary vanguard must establish political democracy and win a popular election prior to armed confrontation with the military-bureaucratic system. It also challenged the dogma that revolutionaries must wait for the arrival of a Marxist-Leninist party before seizing arms and launching an armed struggle. The second challenged the view that the most favorable terrain for waging an armed struggle lies in the city where students and proletariat are situated.[10]

A major break between Che and the communists occurred during a meeting with Mario Monje, leader of the Bolivian Communist Party, in December 1966. Monje said he would handle the party during the struggle and remain the political and military leader as long as the struggle took place in Bolivia. He also said he would initiate relationships with other South American guerrillas in order to enlist their support.[11] While Che did not object to wider liaison, he would not compromise on the point of leadership. He refused to consider any change in leadership and said he would lead the insurrection with or without party support.[12] This disastrous division precluded effective recruitment beyond the immediate area at a time when the guerrillas needed the Communist party for manpower.[13]

Military Operations

The failure of Che's military operations was largely due to his poor choice of terrain. He had planned to begin his guerrilla movement in late 1966 but until October of that year, not even Che (who entered Bolivia on November 6) knew where the guerrillas were going to be based.[14] Guevara finally settled in Nancahuaza in Southeast Bolivia. He bought a house and 500 acres of land to serve as his headquarters. Nancahuaza was chosen for its relative proximity to Argentina, its isolation and its importance as oil and cattle country. Failing to conduct a sufficient analysis of Nancahuaza, Che did not consider the natural and socio-economic characteristics of the area.

With very few animals in the forests of the Nancahuaza and surprisingly few fruit trees, the guerrillas soon used up their food supply and had to buy food from the peasants at enormous prices. Often impassable vegetation made the guerrillas' progress slow. The climate was hot and dry through the summer and cold and wet in winter. During rainy periods, waterways became difficult to cross, especially because many guerrillas could not swim. A greater hindrance was a scarcity of accurate maps of the region. With many forests unexplored, available maps were full of blank spaces and faulty approximations. This made it hard to plan missions, coordinate movements and establish contact points.[15] The problem of inaccurate maps became painfully apparent during a training march Che conducted in January 1967 to familiarize himself and his men with the terrain and the rigors of guerrilla life. The training march, scheduled to last 25 days, became a 48-day ordeal as the guerrillas became lost and suffered hunger and fatigue. Two drowned in a rain-swollen river.[16]

The popular support Guevara expected from the peasantry never materialized because he failed to analyze local political conditions and the ways and customs of the people. Indeed, all hope of gaining popular support was lost as a result of the foreign appearance of Guevara's primarily Cuban guerrillas (only nine of the group were Bolivian). Dressed in jungle fatigues, wearing beards and long hair and carrying field packs and firearms, the guerrillas aroused suspicion among the peasants who believed them to be part of an invading army financed abroad. Furthermore, because Guevara had instituted language classes in Quechua, the dominant Indian tongue, despite the fact that the Indians of Nancahuaza spoke Guarini, the guerrillas were unable to communicate with the peasants.

The Bolivian Army took advantage of peasant distrust, sending soldiers native to the area to collect intelligence and stir up pro-government sentiments.[17] Che's ignorance of the geography of the Nancuhuaza violated two of his basic principles: one, that the guerrilla know the surrounding countryside; and two, that he have the support of the people.[18]

Security

Absolute secrecy, a total absence of information in the enemy's hands, should be a

primary base of the movement. Secondly, and also very important is selection of the human material.[19]

This quotation from Guevara's book **Guerrilla Warfare** suggested an emphasis on operations and personnel security although numerous violations of both rules during the insurrection belied this.

Che's isolated base of operations was open to many visitors, journalists and party members.[20] Constant arrivals and departures attracted too much attention and ruined the secrecy of the operation. The numerous documents and photographs kept at the base headquarters represented another lapse in security. When later captured by the Bolivian Army, they revealed a wealth of intelligence concerning the guerrillas' identities, tactical plans and Bolivian Communist Party contacts.

The unreliability of several Bolivian recruits probably provided the most serious degradation of security. The recruits were given a great deal of information before their trustworthiness could be determined and some deserted to the authorities with knowledge of the guerrillas' nationalities, secret codes, and locations of arms, food and equipment.[21]

Tactical Operations

Tactical errors raised further doubts concerning Guevara's ability as a military commander. While he had proved himself an able guerrilla leader 10 years earlier, age, poor health and low morale affected Che's decision-making in Bolivia.[22]

Che's strategy for the "liberation" of Bolivia was to begin with six months' training and recruitment before moving north to threaten three major cities: Cochabamba, Santa Cruz and Sucre. This, in turn, would allow guerrilla control of railways between Argentina and Santa Cruz and disruption of a Gulf Oil Company pipeline between Santa Cruz and Camiri. Then, with the opening of a second guerrilla base further east, Che would force the 20,000-man Bolivian Army to disperse over an area too large for it to control.[23]

Guevara had to drastically alter the plan three months into the preparatory phase when, during his initial training march, his base camp was discovered by reconnaissance elements of the Bolivian Army. Upon the guerrillas' return, battle ensued with a 32-man Army expeditionary force. Though victorious in the skirmish, the guerrillas lost the initiative and, with their base camp compromised, they were forced to move into the jungle. For still inexplicable reasons, Che remained in the Nancahuaza region even after his presence had been discovered.[24]

During the next eight months, Che conducted guerrilla operations and tried unsuccessfully to obtain peasant support. Early battles with the Bolivian Army were successful with the use of ambush and hit-and-run techniques developed in Cuba. Striking the Army at will, they demoralized soldiers and civilians alike. The Bolivian government, however, made use of early victories by proclaiming that Bolivia was being attacked by foreigners equipped with artillery and aircraft. The peasants' initial distrust of the guerrillas turned to fear; they informed on the guerrillas at every turn.[25]

The high point of the insurrection came on July 7, 1967, when guerrillas captured the town of Samaipata along the Santa Cruz Highway. The mission, like many Che conducted, had no tactical value, however, it was merely a foraging operation for food and athsma medication for Guevara. Che's bad health resulted in a passivity best exemplified by his failure to sabotage oil fields, electric power stations and lines of communication, again in violation of his own writings.[26]

Che's costliest blunder occurred on April 7 when he divided his forces for an operation. Missing a rendezvous three days later, the groups never reunited. The splinter group was ambushed and annihilated by Bolivian soldiers four months later. By early September, a new, more determined foe, the 2nd Bolivian Ranger Battalion, had begun to close in on the guerrillas. Its 650 men had been trained in counterinsurgency by members of the 8th US Special Forces Group. Employing the guerrillas' own hit-and-run tactics, the rangers wore down Che's resistance until, on October 8, 1967, a final battle resulted in Che's capture and the end of the insurrection. The following day Che Guevara was executed by the Bolivian Government.[27]

Conclusion

Had Bolivia attempted to meet the guerrilla threat with conventional means, the results could well have been disastrous. Large-scale American intervention might have overshadowed Che's weaknesses while strengthening his cause. The US denial of heavy weapons and aircraft for use against the insurgents forced Bolivia to use methods far better suited for dealing with an insurgency: propaganda, civic action and small unit tactics. With a divided guerrilla force on one hand and aggressive counter-guerrilla activity on the other, the guerrillas were forced on the defensive and were turned into a band of fugitives.[28]

Footnotes

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5. James, p.18.
6. Richard Harris, **Death of a Revolutionary**, (New York: Norton, 1970), pp. 141–142.
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8. James, p. 18.
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14. James, p. 30.
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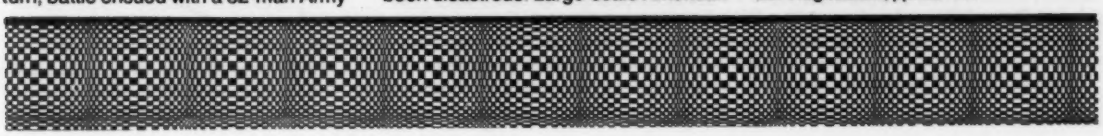
16. Koningsberger, p. 93.
17. James, p. 61.
18. Guevara, p. 17.
19. Guevara, p. 109.
20. LTC John D. Waghelstein, "Che's Bolivian Adventure," **Military Review**, Volume LIX, 1979, pp. 39–47.
21. Koningsberger, p. 91.
22. Waghelstein, pp. 39–47.
23. Harris, p. 68.
24. James, p. 40.
25. James, p. 43.
26. James, p. 68.
27. Waghelstein, pp. 39–47.
28. Waghelstein, pp. 39–47.



(continued from page 31)

reporting all source intelligence, electronic warfare and operations security information; supporting decision-making prerogatives of tactical commanders; and executing national tasks as directed.

Operationally, ASAS is deployed at or near the Tactical Operations Center. It responds to the information needs of the commander as expressed by the G2 for intelligence support and the G3 for electronic warfare and operations security support. The ASAS is manned from existing intelligence assets consisting of CEWI battalions at division level and CEWI groups at corps level.

ASAS is currently undergoing a contractor supported functional systems description (FSD) which began in February 1980 and will be completed in October 1980. The purpose of the FSD is to define intelligence, electronic warfare and operational security functions down to the operator/workstation level. The scope of this effect includes ASAS functions at division, corps and echelons above corps, and the ASAS interface with CEWI units, other Army, joint and national level units.

Ten tasks have been defined for the ASAS FSD. Some examples of these tasks are the baseline assessment which analyzes past and on-going studies, doctrines and development efforts in intelligence, EW, OPSEC, command and control, and fire support; ASAS functions at the operator/workstation level; ASAS alternatives designed to focus on the impact of different potential choices of how to accomplish ASAS functions, i.e., moving some of the functions of ASAS to the Executive Control Subordinate Systems realm, or to the TACFIRE control system, air defense, etc.; and, as the last task discussed here, the performance assessment model. Performance measures provided by the government will be used as the basis for evaluating alternatives in the model. The alternatives will be evaluated and will result in a recommended system at each echelon. The Functional System Description is the finalization of these inputs in the 10 tasks of the study.

The final FSD Study Advisory Group for ASAS was held 19 August at Fort Huachuca. During the 4th QTR FY80, a requirements statement will be submitted to DA stating the need for an early-fielded ASAS using the results of the FSD.

Intelligence Electronic Warfare Mission Area Analysis

The Combat Developments Directorate at USAICS is currently working toward the completion of the Intelligence Electronic Warfare Mission Area Analysis (IEW MAA). The MAA is a TRADOC-directed effort that is intended to determine, define and defend the intelligence requirements necessary to counter threat changes and improvements out to 1990.

The IEW MAA is a two-level effort. Level I is specifically an in-house literature and existing documentation search to determine the intelligence capabilities and potential shortfalls out to 1986. The Level II MAA will include substantial contractual support and examines the areas applicable from Level I as well as those new areas driven by alterations in the threat out to 1990. The Level II IEW MAA is scheduled for publication in Fiscal year 1981.

President Jimmy Carter congratulates Brigadier General William Eldridge Odom on his 30 May promotion while Assistant to the President for National Security Affairs Zbigniew Brzezinski looks on. General Odom has been the Military Assistant to Mr. Brzezinski since January, 1977. A graduate of the United States Military Academy with a BS in Engineering, General Odom earned an MA in Russian Area Studies and a Ph.D in Political Science from Columbia University. He is a graduate of the Infantry Officer Basic and Armor Officer Advanced Courses and the US Army Command and General Staff College.

(continued from page 29)

8. Vance Packard, **The Naked Society**, (New York: David McKay Company, Inc., 1969), pp 32, 79.
9. Robert M. Brown, **The Electronic Invasion**, (New York: John F. Rider Publisher, Inc., 1967) pp 157. The schematics for numerous electronic surveillance devices are contained in this book. The parts necessary to build an electronic "bug" can readily be purchased at any electronics supply store.
10. **Acquisition and Storage of Information Concerning Non-Affiliated Persons and Organizations**. AR 380-13, HQ, Department of the Army, 6 September 1965, para 9 c.
11. Martin Abramson, "Are Lawmen Breaking Wiretap Laws?" *Deseret News*, May 23, 1967, pp a 17.
12. "Snooping Electronic Invasion of Privacy," *Life*, May 20, 1966, pp 38.
13. *1978 Radio Shack Catalog Number 276*, Fort Worth, Texas, 1978, pp 33. The FCC has withdrawn authorization for FM microphones and the $19.95 FM microphone model number 33-1048 is not shown in the *1978 Radio Shack Catalog Number 302*. However, local dealers had the device in stock or could get it as of September 1978.

The Weakness of Soviet Military Leadership in a Changing Environment

by CPT Edward W. Kane, USAR

That the Soviet Army is an awesome force has never been seriously disputed. Its massive array of hardware, tremendous firepower and sheer numbers of troops have gained it an overwhelming amount of respect throughout the world. The capability of its officer corps to effectively manage its enormous resources in war has been questioned, however. A potential adversary recognizing what appears to be a weakness in leadership and a lack of willingness among Soviet officers to take the initiative in combat, may be able to exploit this weakness to its advantage.

Doubts concerning the leadership ability of the Soviet Army long persisting among Western military analysts have been confirmed by the Soviet Union's inability to quickly destroy resistance in its battle for control of Afghanistan. For the vast majority of the Soviet Army officers, Afghanistan is the first combat experience just as the conflict is the Soviet Union's first large-scale combat effort since World War II. Remember that while the Soviet Union played a significant support role in the Korean and Vietnam Wars, it did not commit ground troops to combat.

A US official anonymously quoted in the article "Russian Army Has Been Good but Not Perfect in Combating the Insurgents in Afghanistan," noted that "The poor leadership of the field commanders is something that has plagued the Soviet Army throughout history."[1] He traced current difficulties encountered by the Soviet divisions to the inability of the commanding officers to adjust their rigid Europe-oriented training and strategy to an insurgency. Examining the relationship between the political system and the military chain of command, he concluded:

It's a political army and decisions come from above. Lieutenants and captains are reluctant to take the initiative. This works very well in peacetime and in training but not as well in combat. They tend to miss targets of opportunity.[2]

The reluctance of Soviet officers to take the initiative is perhaps difficult for United States Army officers to grasp because Officer training and evaluation stress the importance of intiative. Perhaps in no other area is the contrast between the Soviet Army and the United States Army more profound.

The lack of initiative among Soviet officers has been discussed in the American media. In "Moscow's Military Machine," ***Time Magazine*** observes of the Soviet officers: "They have been trained to prize iron discipline, they believe in conformity to a highly centralized command system, and above all, they follow orders."[3] While this may appear to praise Soviet officers' integration withing the chain of command, the article further states: "But on a modern battlefield, communications can easily be cut and unit formations disrupted. Under these conditions, Soviet officers might not be able to take advantage of sudden opportunities and improvise winning tactics."[4]

As the Soviet Army's experience in Afghanistan has shown, an inability to make battlefield decisions can be costly in terms of casualties. Its difficulties are all the more significant when one recognizes the almost primitive military force, poorly armed and lacking in effective coordination, that it opposes. With neighboring Afghanistan, the Soviets suffer little logistically as did the US while fighting in remote Vietnam.

Rigid adherence to doctrine, lack of flexibility on the part of the officers corps and a failure to delegate decision-making responsibility to the lowest possible levels seem almost at variance with the concept of combat itself. Perhaps the most important combat function of an officer is to creatively react to a rapidly changing environment. Given technological advances in mobility, communications and firepower, changes will occur even more quickly on future battlefields. In ***Army Reserve Magazine***, Lt. General Pustay wrote, "The military is not adept at deviating from the book, and if there is any certainty about war, it's that it does not follow the book."[5]

Numerous opportunities to exploit this weakness exist. Target acquisition efforts can be directed against the Soviet command and control network, and electronic countermeasures and jamming techniques can disrupt communication links sending orders to lower echelon Soviet officers. An emphasis on rapid mobility, harassment, interdiction raid and destruction of supply links could isolate and confuse an enemy which cannot cope with problems of its own.

As events in Afghanistan have shown, Soviet officers' reluctance to take the initiative may render them incapable of accomplishing their wartime mission.

Footnotes

1. ***The Wall Street Journal***, April 24, 1980, P. 48.
2. Ibid.
3. ***Time Magazine***, June 23, 1980, Time Inc., New York, New York, P. 31.
4. Ibid.
5. Lt. General Pustay as quoted in "Soviet Unrest: The Shadow Lengthens," ***Army Reserve Magazine***, Spring 1980.

Lancaster At War 2, by Mike Garbett and Brian Goulding, Charles Scribner's Sons, New York, NY, 1979, 160 pages, $17.50.

The saying "Beauty is in the eyes of the beholder" certainly applies to the British-built Lancaster bomber. While it could not have competed in beauty contests, the "Lanc" certainly won wide acclaim for its role in carrying the war to the German homeland.

This is the second volume on the Lancaster by authors Garbett and Goulding. The first, published in 1971 (at nearly half the price of the current volume), concerned itself with the different phases of a typical bombing mission. **Lancaster At War 2** considers a more interesting aspect: the people who worked on the Lancaster and flew it in combat. The story is told in pictures and words of pilots, navigators, gunners, armourers and engine mechanics. Through their eyes, the Lancaster comes alive. The reader can work with them on a troublesome malfunction or brave flak and fighters over Germany.

Lancaster At War 2 is well-edited and nicely illustrated. It provides an excellent exposure to the world of World War II air combat and those who knew it first hand.

Captain Don Rightmyer, USAF
Office of Air Force History

Professional Reader

Angola, Five Centuries of Conflict, by Lawrence W. Henderson, Cornell University Press, Ithaca, New York, 1979, 265 pages.

Lawrence Henderson's account of Angola's last five hundred years is written in a concise and informative manner, and studies Angola's strategic position in southern Africa.

To understand Angola's present role, one needs a historical perspective of its major struggles and problems during the last five hundred years. Henderson provides this background in chapters one and two, where he describes the Angolan environment and Angola's various ethnolinguistic groups to chapters three and four, which depict the slave trade from 1482 to 1884 and the colonialism which followed from 1884 to 1920. The tumultuous period of colonial peace from 1920 to 1960 is discussed in chapter five while chapter six describes clashes between the Angolans and Portugese nationalists from 1961 to 1965. The final chapter brings the reader up to 1976 by providing insights into the internal conflicts of the Angolan and Portuguese nationalists. Henderson concludes his account by observing that the struggle is not over. Too many conflicts of interest remain. The author suggests that the main problem is an attempt to make Europeans out of Angolans: "What is being imposed on Angola today is a carbon copy of European political thought and action ... We therefore have a war which cannot end while the Angolan rulers do not begin to think as Angolans."

Henderson's book should definitely be read by anyone interested in Angola's past, present and future and the vital role it plays in tenuous world peace.

2LT Diane Anderson
Co G, USAICS

Zulu War Journal, by Colonel Henry Harford, edited by Daphne Child, 1980 Archon Book-The Shoestring Press Inc., Hartford, Conn., $10.95.

The Zulu War, fought between the British and the Zulu tribesmen in 1879, was one of the more colorful campaigns in history, although it has only recently begun to receive much attention in this country.

In 1965, Donald Morris wrote the major book on the war, entitled, **"The Washing of the Spears."** This was followed by the movie Zulu, about the defense of Rorke's Drift, perhaps the most famous battle in British history. Morris's book should be read prior to reading **Zulu War Journal**.

Britain precipitated a war with the Zulus by making unreasonable demands upon their sovereignty which were, as predicted, ignored. The campaign against the Zulus was conducted by three columns. Column 1 moved north from Stangor to Ulandi, the Zulu Capital; column 2 moved southeast from Utrecht; column 3 moved northeast from Ladysmith, passing through Helpmakkar, Rorke's Drift, Isandlawana towards Ulundi.

Henry Harford, a lieutenant in the British Army, had grown up in the area and knew the language and the people. He had returned to England but volunteered for service in Africa and was commissioned a captain in the Natal Native Contingent which accompanied the 3rd column.

Harford's journal gives an excellent description of the problems encountered during the campaign; how he managed to avoid death at Isandlawana (the worst massacre in British history), and his trip to aid the defenders of Rorke's Drift all make for a hair-raising adventure story.

The editor's comment, "The work is a young man's description of and commentary on, events as they happened, not an old man's reminiscence of things long past," is very appropriate. There are no startling revelations on the war or on warfare in general nor is there commentary on British Foreign Policy. Harford was a professional soldier as only the British can produce. Who but the British could produce an officer who in the midst of a battle stops to collect rare beetles for a museum.

The importance of the regimental colors of a British Regiment is more fully documented and the lengths to which the British went to recover the Queen's Colors (lost at Isandlawana) are remarkable.

Zulu War Journal was easy to read and well worth the effort. Anyone who is a serious student of the Zulu campaigns should not overlook this work.

Maj William L. Howard, USAR

The Court-Martial of General George Armstrong Custer, by Lawrence A. Frost, University of Oklahoma Press, Norman, 1979, xii + 280 pages, 14 illustrations.

When we think of George Armstrong Custer, the image that comes to mind is of a six-foot tall, broad-shouldered man—probably the most picturesque and magnetic Army officer of his day—with shoulder length golden hair and a swagger. Many books have been written about his impetuosity and the tactical blunder on June 25, 1876 at the Battle of the Little Big Horn which resulted in his (and his entire column—212 officers and men of the Seventh US-Cavalry) annihilation by Crazy Horse's Sioux Warriors. Civil War enthusiasts know Custer as the 23-year old general at Gettysburg who routed Wade Hampton's rebel horsemen, crying, "Come on, you Wolverines!" to the 7th Michigan or rode with "Little Phil" Sheridan's Army of the Shenandoah and overran Jubal Early's command at the Battle of Waynesboro.

History's fascination with Custer is easy to understand but Lawrence Frost's work studies an episode too often overlooked or purposely ignored. Dr. Frost has produced a detailed work which will surely stand as an authoritative account for years to come. Inasmuch as he has set out to present the verbatim proceedings of the trial, he confined himself to that event and devoted only the space necessary to present the significant events leading to the filing of charges against Custer.

Events which occurred before Custer was charged—the complete story of the termination of Major General Winfield S. Hancock's expedition and the loss of General "Cump" Sherman's written order to Custer—had a profound effect on the outcome of the trial. A good historian, Frost does not attempt to disguise the fact that the trial of General Custer is a sad one. "The hatred of Sherman, Sheridan,, and Custer by most officers, especially by those who graduated from West Point before them and found themselves at the close of the war junior to them," must be given a great deal of consideration when one reads the transcript of the trial.

The tale of omission, or maybe commission, is extraordinary. Lieutenant General William Tecumseh "Cump" Sherman was never called to testify in Custer's defense although Custer based that defense on orders received from Sherman. The events described in this work are sometimes so incredible as relating to the personalities involved

that the reader might imagine this book a work of fiction.

As Indian depredations increased in the valleys of the Smoky Hill, Solomon, Republican and Platte rivers during 1866, settlers and the US government found themselves in a fight to the finish. Quite concerned about the Indian raids, General Sherman, commander of the Military Division of the Missouri, decided upon a military appearance along the Platte. Major General Winfield S. Hancock was placed in charge of the campaign. Brevet Major General George Armstrong Custer, Lieutenant Colonel, Seventh US Cavalry, and six companies of the Seventh left Old Fort Hays near the Smoky Hill on June 1, 1867 to "scout south to Fort McPherson on the Platte, describe a semicircle southward, touching the Republican River, and then toward Fort Sedgwick on the Platte River... move south to Fort Wallace on the Smoky Hill and then to the starting point at Fort Hays—in all, about a thousand miles." On July 15, General Custer decided to leave the Seventh Cavalry with one hundred men in order to reach Fort Harker for medical supplies—cholera had made its appearance and deaths were a daily occurrence—and food. Custer reached Fort Harker on July 19, 1867 and reported to Major General A. J. Smith, commander of the military district encompassing Fort Harker. Having made his report to Smith, Custer requested permission to visit Fort Riley, 90 miles east, where his family was located. That request was not specifically or emphatically denied. General Custer proceeded to Fort Riley on July 19 and had barely arrived when ordered by Smith to return immediately to Fort Harker. On his return, Custer was placed under arrest to await court-martial on charges of leaving his command at Fort Wallace without proper authority.

General George A. Custer was tried and found guilty of all charges and specifications. He was suspended from rank and command for one year and forfeited his pay during that period.

Lawrence Frost's book is a first-class account of the court-martial, written with great verve and clarity and solidly based on primary and secondary source material. His brief introduction to the book brings the reader to it well-informed. Dr. Frost is to be congratulated for rescuing "Autie," as Custer was called by his wife, from limbo. A great deal can be learned from the book about the campaign against the Indians after the Civil War and the professional jealousy that then existed within the ranks of the Officers' Corps.

The Court Martial of General George Armstrong Custer belongs on the shelf of anyone who teaches American history, US military history, or the role of the US Army in western expansion.

Reginald W. Hall, COL (Ret.)

Out of the Sky, by Michael Hickey, Charles Scribner's Sons, New York, 1979, 286 pages, $15.

Out of the Sky is a compendium of the success and failure of strategic and tactical use of both airborne and helicopter forces since World War II. The book provides an excellent reference text for all NCOs and officers involved in airborne and airmobile operations.

There is a particular sense of professional reward one derives when reading a military book by an author who writes crisply, knowledgeably and with experience and precision. Michael Hickey, a retired British officer, does this and provides the reader his money's worth.

Out of the Sky is a concise history of airborne and airmobile operations from the origin of air assault forces to the 1978 Kolwezi Raid. Readers of ***MI Magazine*** have hopefully learned about Soviet units intended to attack rear-area command posts; military intelligence centers and field stations are chief targets. The Soviets use the term "distant operations" to discuss these raids; Hickey explains them well.

The absence of pages 176 through 193 of the review copy is attributed to poor quality control by the importer, Charles Scribner's Sons. An author who devotes so much time to writing very well deserves better. **Out of The Sky** is highly recommended.

LTC Don E. Gordon

Fort Gibson, Terminal on the Trail Of Tears, by Brad Agnew, University of Oklahoma Press, 1980, 211 pp. No price listed.

In **Fort Gibson**, Brad Agnew covers the history of an outpost in the American southwest during the second to fourth decades of the last century.

The post was established to help in the migration of the eastern Indian tribes. The government decided it would be better for all concerned to get the Indians out of the eastern states to make room for white expansion. Consequently, the Indians, primarily the Cherokees, were "persuaded" to move West.

What is most refreshing about this book is the portrayal of the Army's role. The post was established not only to keep whites and Indians from hostilities but to make and keep peace between the Indian tribes. Much of the garrison's efforts were spent in trying to keep the Osage and the Cherokee tribes from killing each other off.

In the book Agnew paints the Army as something more than a cold, impersonal arm of policy enforcement and as something quite different from the Army pictured at Wounded Knee. During one particularly tense period, the Army at Fort Gibson was used to deter a punitive expedition of white militia. Of course, the garrison also had to spend quite a bit of time keeping whites from selling liquor to the Indians.

Agnew has produced a highly readable history of the early Southwest and the Indian policy of the 1820's and 1840's. This work is highly recommended for both the serious historian and the casual reader.

2LT Robert P. Coulaz, Jr.
Co G, USAICS

Yesterday and Today: A Dictionary of Recent American History, by Stanley Hochman, McGraw-Hill Co., New York, 1979, viii + 407 pages, $19.95.

Do you know about the "Marcussean Revolution" or the "Revolt of the Admirals?" If not, it is useful (and enjoyable) to know where to find out about them. In Stanley Hochman's **Yesterday and Today: A Dictionary of Recent American History** you will discover such information. The book covers the period 1945 to 1979. If Hochman has left anything out, you would be hard-pressed to find what it is. Events are arranged in alphabetical order and each is succinctly described.

An author must always push for more than we expect in order to make us admire his work. Hochman has done just that. Included are military references to the Korean and Vietnam Wars, like "The Iron Triangle," "Pork Chop Hill," and "Parrot's Beak." An index of names permits you to trace the roles that politicians, intellectuals, educators and military leaders played in America's post-war society. Excellent cross-referencing allows you to obtain additional information on a subject or event. **Yesterday and Today** is a good reference work, and for the price, well worth having.

Reginald W. Hall, COL (Ret.)

U. S. GOVERNMENT PRINTING OFFICE: 1980-N-683-250/4

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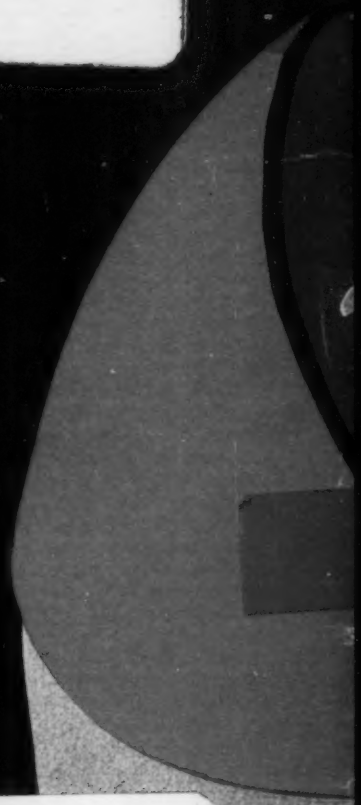
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